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Rockin' Through the Rocky Mountains

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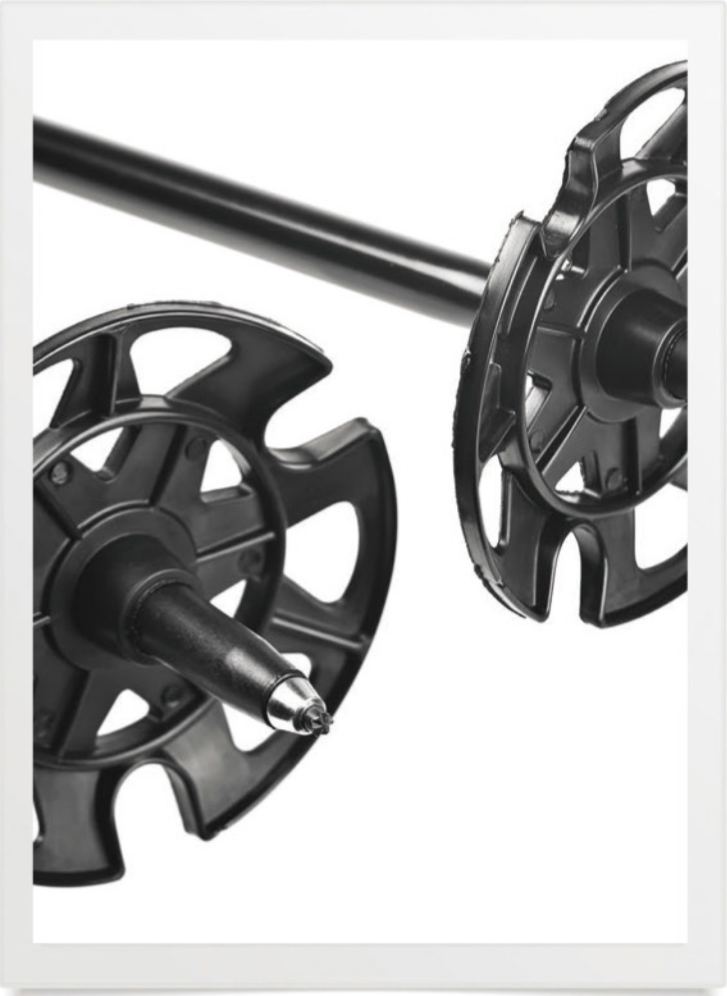
APRIL 2023

MYSTERY PHOTO



↑ **Do you know what this is?**

See page 48 for the answer.

← **About the Cover**

The Rocky Mountains dominate western North America.

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PERMISSIONS SPECIALIST Christine Voboril
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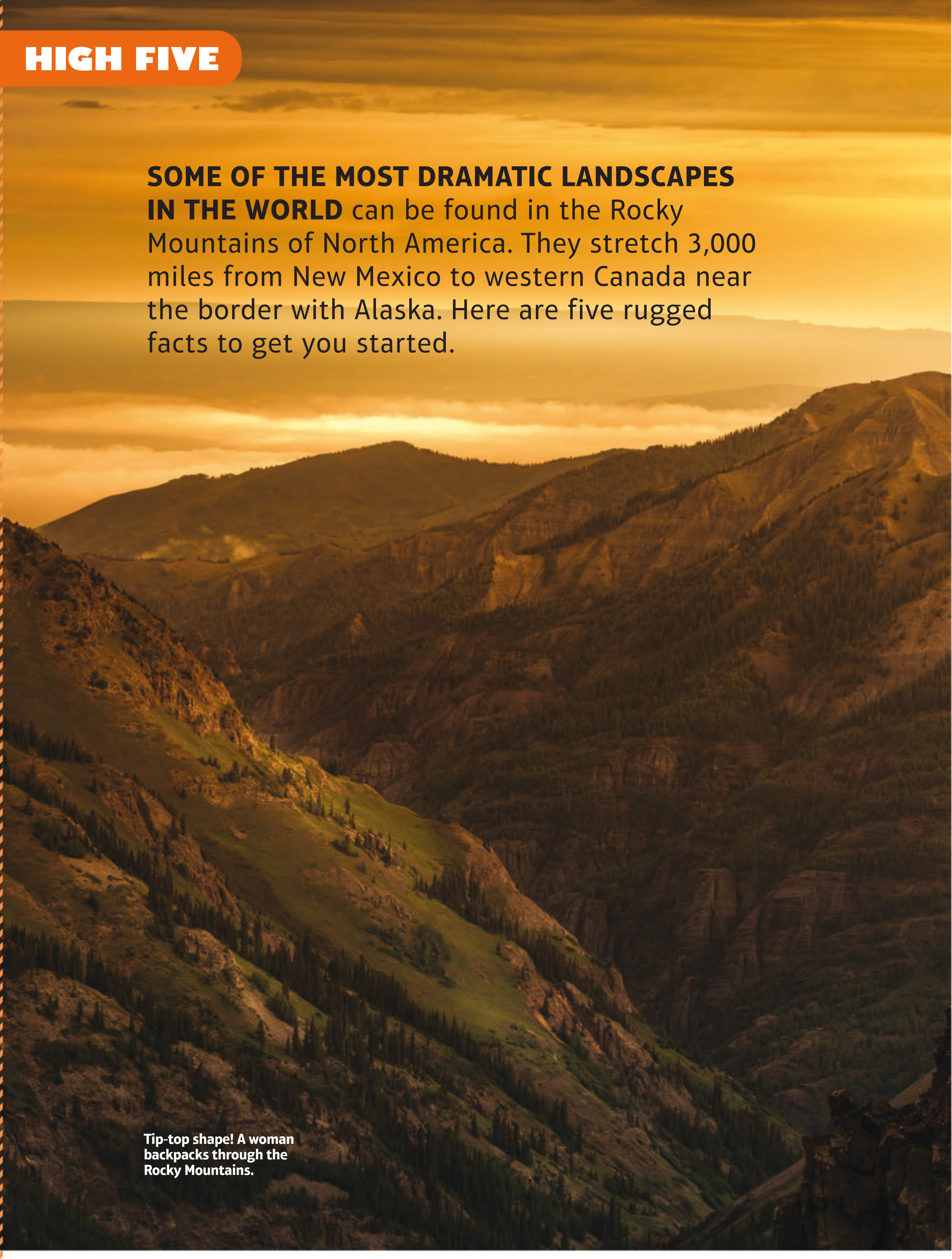
HIGH FIVE

SOME OF THE MOST DRAMATIC LANDSCAPES IN THE WORLD can be found in the Rocky Mountains of North America. They stretch 3,000 miles from New Mexico to western Canada near the border with Alaska. Here are five rugged facts to get you started.



Tip-top shape! A woman backpacks through the Rocky Mountains.

The Rockies are just hill-areas!

1 The highest Rocky Mountain peak is Mount Elbert in Colorado. In fact, of the 100 highest peaks in the mountain range, 78 of them are in Colorado. Colorado Rockies, indeed!

2 Of all the dinosaurs that once roamed the Earth, nearly a quarter of them were found in or around the Rocky Mountains. The *Tyrannosaurus Rex*, the largest and fiercest dinosaur, ruled over North America and Asia 68 million years ago.

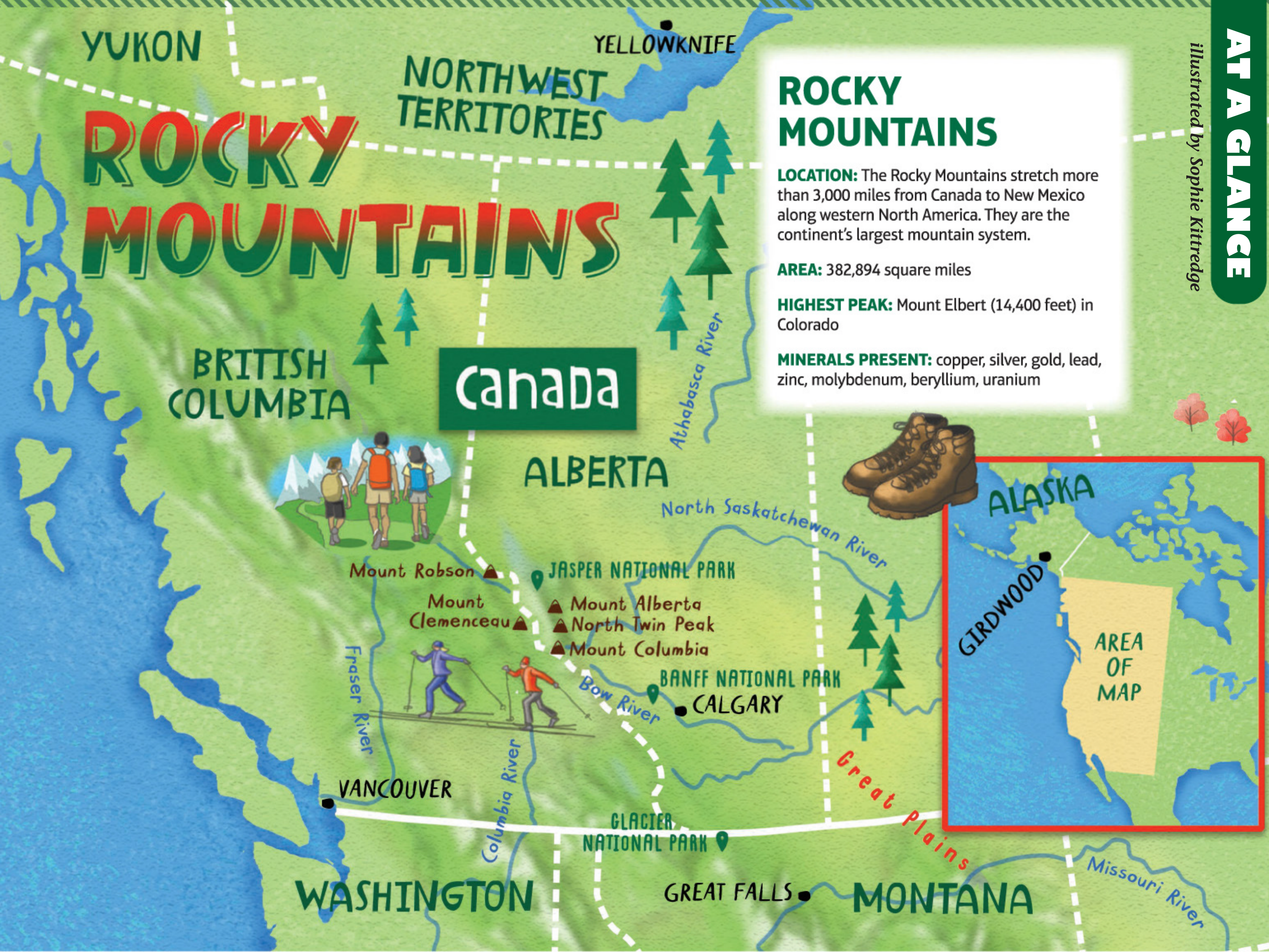
3 The eastern slope of the Rocky Mountains, typically called the Front Range, is one of the most hail-prone areas in the United States. When very strong spring and summer storms are pushed quickly upward in the atmosphere, the moisture in the clouds attaches and freezes to ice crystals and dust particles. Updrafts and gravity create a juggling act with these forming ice particles. Each time the hailstones cycle up and back down in the cloud, more supercooled water freezes. Most hailstones grow to about half an inch in diameter. However, it's not unheard of to find hail the size of golf balls, baseballs, and in certain circumstances as large as grapefruit.

4 Happy Frozen Dead Guy Days! Until recently, the people of Nederland, Colorado, celebrated Frozen Dead Guy Days with coffin races and frozen turkey leg bowling. The festival began after the frozen body of a man was shipped to his grandson, who lived in town. Locals got sick of giving directions to the media and put up a sign that read "Directions to the Frozen Dead Guy."

5 The Cliff Dwellers of the 13th century built their homes hundreds of feet high, on the edges of steep cliffs. These adobe structures were built in the recesses of canyon walls. Some of these remaining structures are nearly impossible to reach even by today's most experienced rock climbers.

AT A GLANCE

illustrated by Sophie Kittredge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ROCKY MOUNTAINS
NORTHWEST TERRITORIES
YELLOWKNIFE
BRITISH COLUMBIA
Canada
ALBERTA
Athabasca River
North Saskatchewan River
Mount Robson
JASPER NATIONAL PARK
Mount Clemenceau
Mount Alberta
North Twin Peak
Mount Columbia
Fraser River
Bow River
BANFF NATIONAL PARK
CALGARY
VANCOUVER
Columbia River
GLACIER NATIONAL PARK
Great Plains
WASHINGTON
GREAT FALLS
MONTANA
Missouri River
ALASKA
GIRDWOOD
AREA OF MAP

ROCKY MOUNTAINS

LOCATION: The Rocky Mountains stretch more than 3,000 miles from Canada to New Mexico along western North America. They are the continent's largest mountain system.

AREA: 382,894 square miles

HIGHEST PEAK: Mount Elbert (14,400 feet) in Colorado

MINERALS PRESENT: copper, silver, gold, lead, zinc, molybdenum, beryllium, uranium

Mountain Zones

by Mike Weinstein

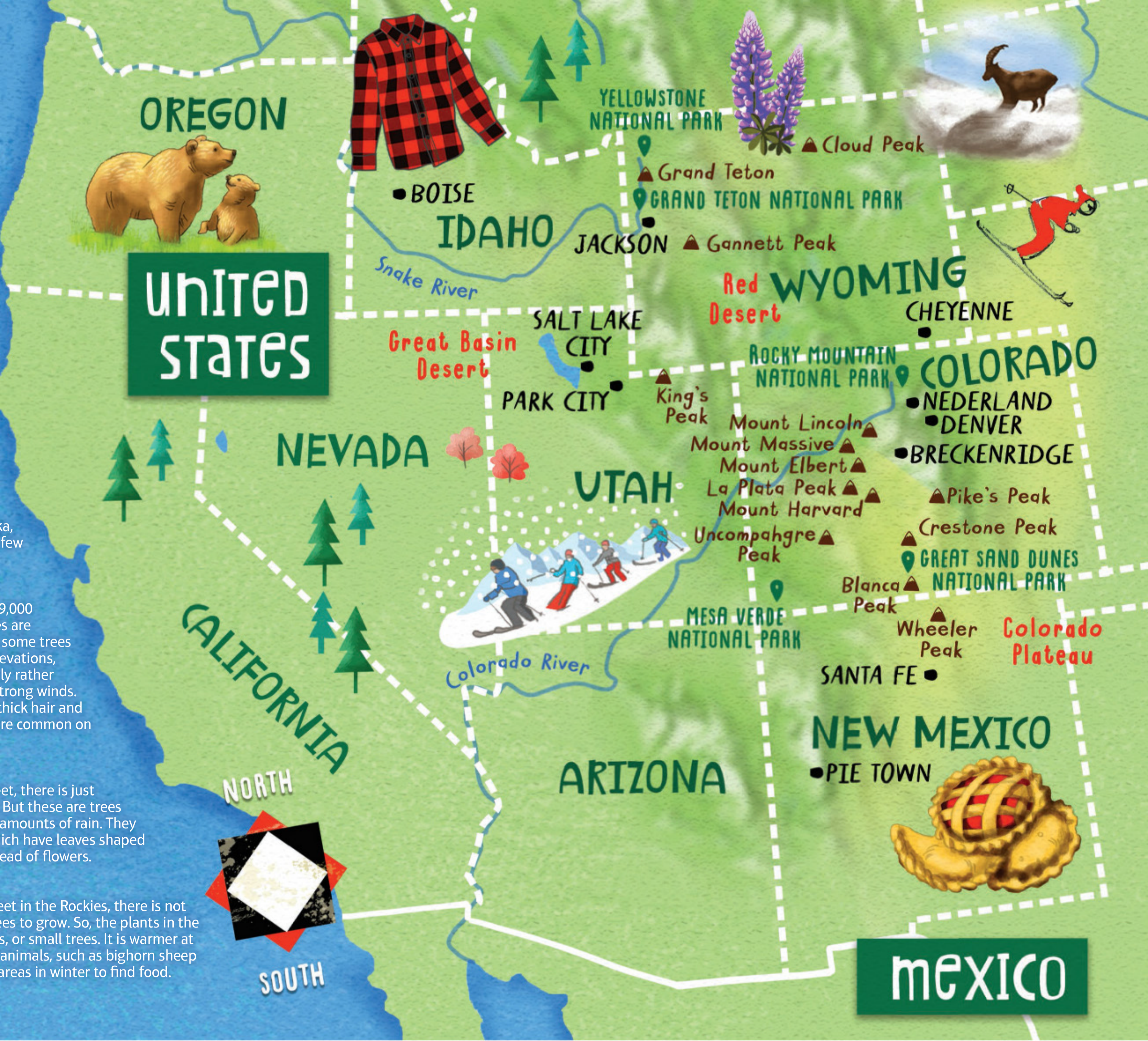
Climbing a mountain is like traveling to a faraway place. On a mountain, the scenery changes as you go higher because it gets colder and wetter at higher elevations. In the Rocky Mountains of Colorado, each zone of elevation has its own lifeforms.

Alpine tundra
Above 11,500 feet, the alpine tundra marks the timberline. No trees grow above the timberline because it is too cold and windy. Plants in the tundra are tiny and hardy. Rodents, such as the marmot and pika, live here because there are few predators to eat them.

Subalpine forest
As the elevation rises from 9,000 to 11,500 feet, temperatures are colder, making it harder for some trees to survive. At the highest elevations, many trees grow horizontally rather than vertically because of strong winds. Mountain goats, with their thick hair and specially adapted hooves, are common on higher, rocky elevations.

Montane
Between 5,550 and 9,000 feet, there is just enough rain for large trees. But these are trees that can survive with small amounts of rain. They are mainly conifer trees, which have leaves shaped like needles, and cones instead of flowers.

Foothills
At elevations under 5,500 feet in the Rockies, there is not enough rainfall for large trees to grow. So, the plants in the foothills are grasses, bushes, or small trees. It is warmer at the lower elevations. Large animals, such as bighorn sheep and elk, move to the lower areas in winter to find food.


OREGON
UNITED STATES
BOISE
IDAHO
Snake River
YELLOWSTONE NATIONAL PARK
Cloud Peak
Grand Teton
GRAND TETON NATIONAL PARK
JACKSON
Gannett Peak
Red Desert
WYOMING
CHEYENNE
SALT LAKE CITY
Great Basin Desert
PARK CITY
King's Peak
ROCKY MOUNTAIN NATIONAL PARK
COLORADO
NEDERLAND
DENVER
BRECKENRIDGE
Mount Lincoln
Mount Massive
Mount Elbert
La Plata Peak
Mount Harvard
Pike's Peak
Crestone Peak
GREAT SAND DUNES NATIONAL PARK
Uncompahgre Peak
NEVADA
UTAH
Blanca Peak
MESA VERDE NATIONAL PARK
Wheeler Peak
Colorado Plateau
SANTA FE
Colorado River
CALIFORNIA
NEW MEXICO
PIE TOWN
ARIZONA
NORTH
SOUTH
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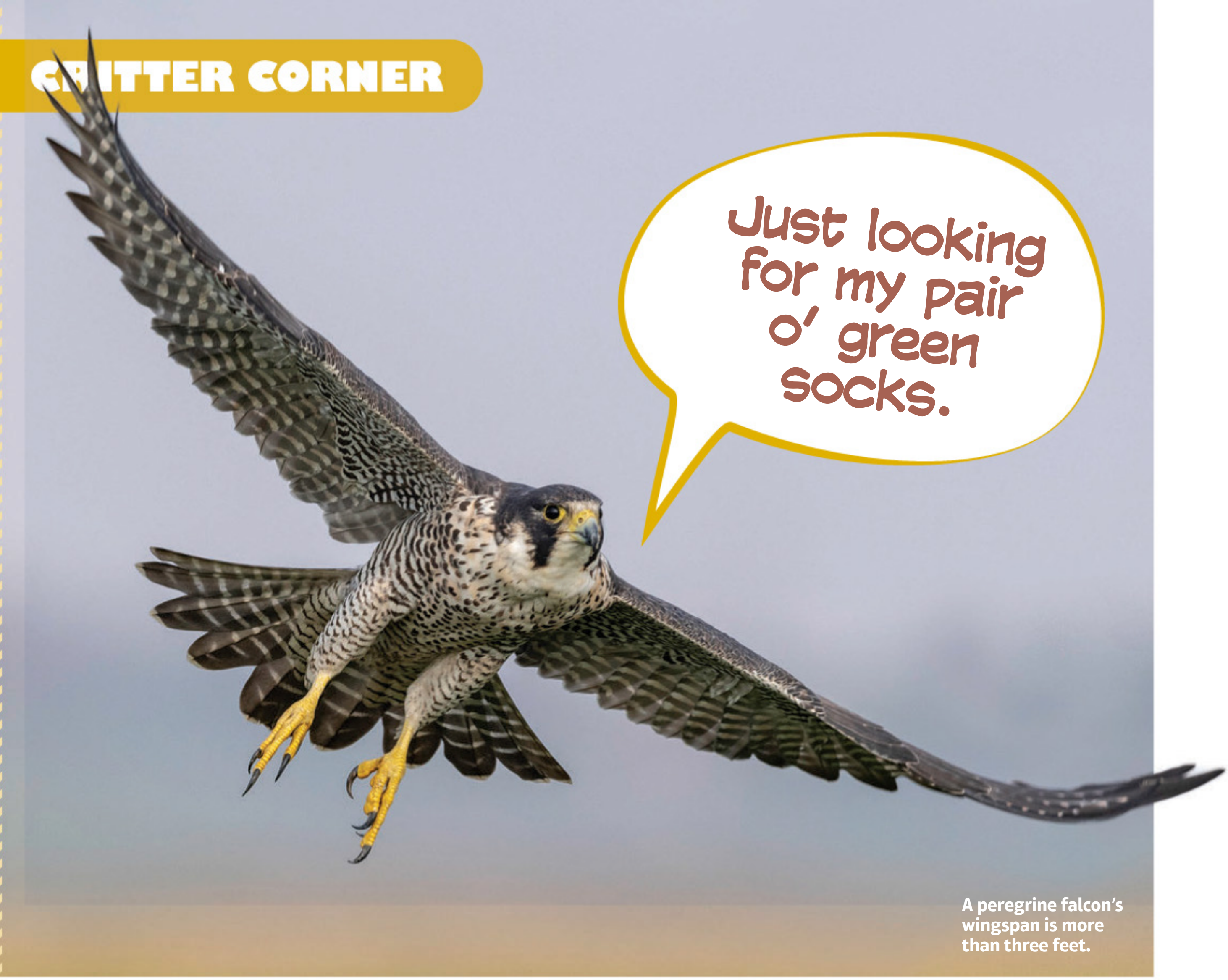


A peregrine falcon's wingspan is more than three feet.

The Peregrine Falcon

SPECTACULAR BIRD OF PREY

by Pat Betteley

A dove wings its way across the morning sky. Whoomf! In an instant, an unseen predator from above swoops down, stuns it, and carries it away in its sharp talons. What just happened? The unsuspecting dove has been caught by a peregrine falcon, the fastest animal on the planet. The peregrine falcon can reach speeds of 240 miles per hour when diving for prey. What makes this prized predator one of nature's top hunters? Read on!

Characteristics

The powerful, fast-flying peregrine falcon hunts medium-sized birds, waterfowl, and sometimes small mammals, lizards, and fishes. Extra prey is cached (hidden for later), especially during breeding season. The feathers on the topside of the peregrine's body are bluish gray. Its underparts are white with black bands, and its wings are long and pointed. Its face has a black stripe on each cheek and large, dark eyes.

Peregrine falcon chicks are covered in a creamy-white down.

Keen Senses and Special Structures

The peregrine can spot its prey more than a mile away. For a human, that would be like seeing a rabbit from 17.6 football fields away. In the "how-does-it survive-that-dive?" department, scientists think a special series of baffles (thin flat structures that slow the flow of air) in a peregrine's nostrils allows the bird to breathe during its high-speed dives.

Points for Style

The peregrine falcon can fly .62 miles *above* its prey, then power dive to strike with clenched talons, stunning and killing the animal by its impact. Sometimes, the peregrine circles rapidly around to catch the falling bird in its talons. Often, the falcon strikes its prey with the sun to its back. This makes it easier for the peregrine to see, but nearly impossible for the prey bird to see what's coming.

Habitat and Nesting

Peregrine falcons are found on all continents except Antarctica. Their name comes from the Latin word *peregrin*, which means "traveler." Peregrine populations that breed in the tundra of Alaska and Canada may migrate as far as central Argentina and Chile, but populations in more southern areas don't migrate. Peregrines prefer open habitats, such as grasslands and tundra. They do not build stick nests. They scrape out depressions in the soil on a cliff ledge or use deserted nests of other species. Their nesting sites are called aeries or eyries and can be found high in the Rocky Mountains or more recently, in tall buildings in cities where there are many pigeons to prey upon.

The Scariest Stoop (Dive) of All

Less than 100 years ago, peregrine falcon populations took one amazing swoop—toward extinction. Between the 1940s and 1970s, DDT (a chemical used to kill insects) built up in the bodies of prey birds eaten by peregrine falcons. This weakened eggshells so that they broke when the parents tried to incubate them and caused widespread failure to reproduce. The species disappeared from many of its former breeding ranges. DDT was banned and painstaking conservation efforts led to the recovery of the species. Scientists used methods of handling captive birds developed by falconers (people who use a wild falcon to hunt) to help reestablish populations.

Most populations are stable, and peregrine falcons are again soaring high and swooping low in the mountains, over prairies, and in many large cities and coastal areas. Hooray for a conservation success story.

PEREGRINE FALCON STATS:

- **Scientific name:** *Falco peregrinus*
- **Size:** The peregrine falcon's body is 15 to 20 inches long and it has a wingspan of 3.3 to 3.6 feet.
- **Weight:** 1.25 to 2.75 pounds
- **Diet:** carnivore
- **Predators:** great horned owls, gyrfalcons, golden eagles. Cats, bears, wolverines, and foxes may take nestlings

Falconry has been around for 4,000 years and was once known as the "sport of kings." Falconers use a wild hawk, falcon, or eagle to hunt and return live prey back to its master.

Welcome to

Some of the most breathtaking landscapes in the world can be found in the Rocky Mountains region of the United States and Canada. The mountains themselves were formed millions of years ago when sections of the Earth's crust collided. There are many different mountain ranges that are part of the Rockies, and they stretch thousands of miles from Canada to New Mexico. The mountains pass through portions of Idaho, Montana, Wyoming, Colorado, and Utah. (Although the Rocky Mountains do not run through Nevada, the U.S. Census Bureau recognizes it as a Mountain State.) In Canada, the Rockies run through the provinces of Alberta and British Columbia. The mountains of the Canadian Rockies differ in appearance from the American Rockies. The peaks are more jagged, and the tree line is much lower in the Canadian Rockies.

Lake Moraine is a crystal blue lake in Banff National Park in Alberta, Canada.

I come here for reflection.

Life is a highway. This scenic route takes drivers through Montana.

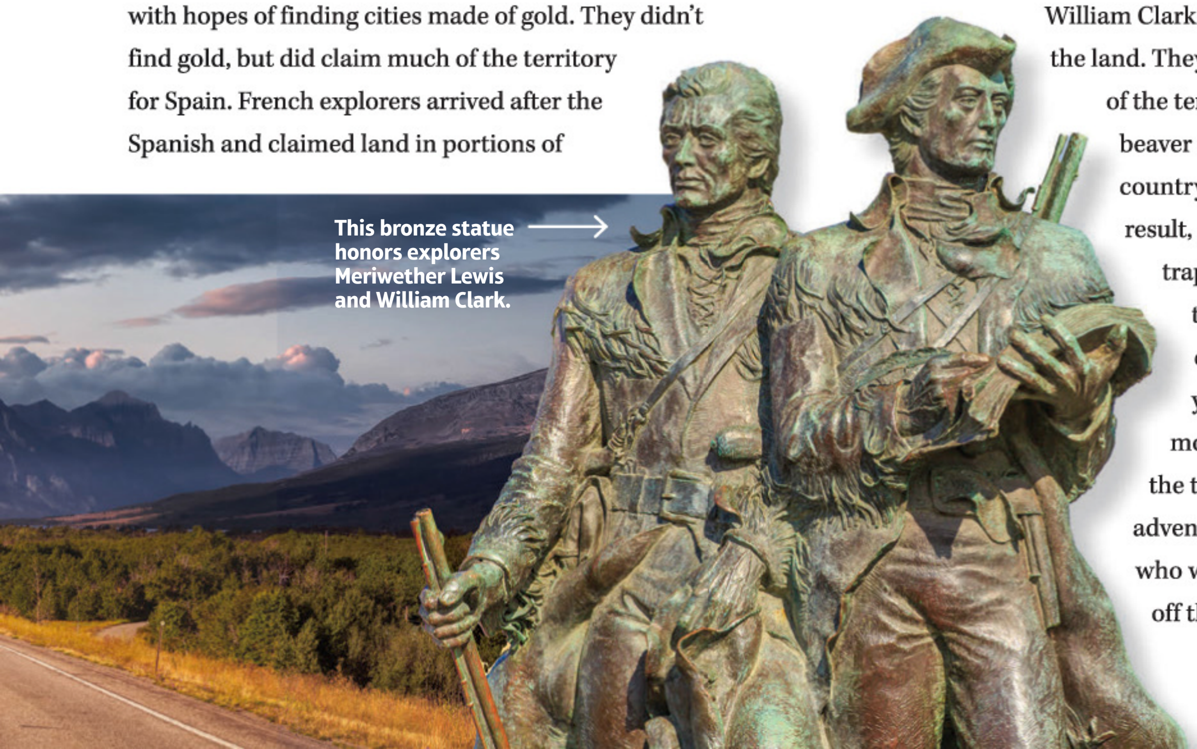
the Rockies

by Christine Graf

The Rocky Mountain region was first inhabited more than 10,000 years ago by small bands of nomadic people who scientists have named Paleo-Indians. They were hunters and gatherers who are believed to have crossed a land bridge from Asia to North America. The tribes of Native Americans that lived in the region thousands of years later were also hunters and gatherers, and the buffalo was crucial to their survival.

The Spanish began exploring the area in the 1500s with hopes of finding cities made of gold. They didn't find gold, but did claim much of the territory for Spain. French explorers arrived after the Spanish and claimed land in portions of Montana, Wyoming, Idaho, and Colorado. In 1803, this land was included in the Louisiana Purchase, the United State's acquisition of more than 800,000 square miles of land from the French. Land in parts of present-day Utah, Nevada, Wyoming, and Colorado was purchased from Mexico in 1848 after Mexico's defeat in the Mexican-American War. Mexico had acquired the land after winning its war of independence from Spain in 1821.

After the Louisiana Purchase, Meriwether Lewis and William Clark were sent to explore the land. They reported that some of the territory was "richer in beaver and otter than any country on Earth." As a result, fur traders and trappers headed to the Rocky Mountains during the next 30 years. Known as mountain men, the trappers were adventurous explorers who were able to live off the land.



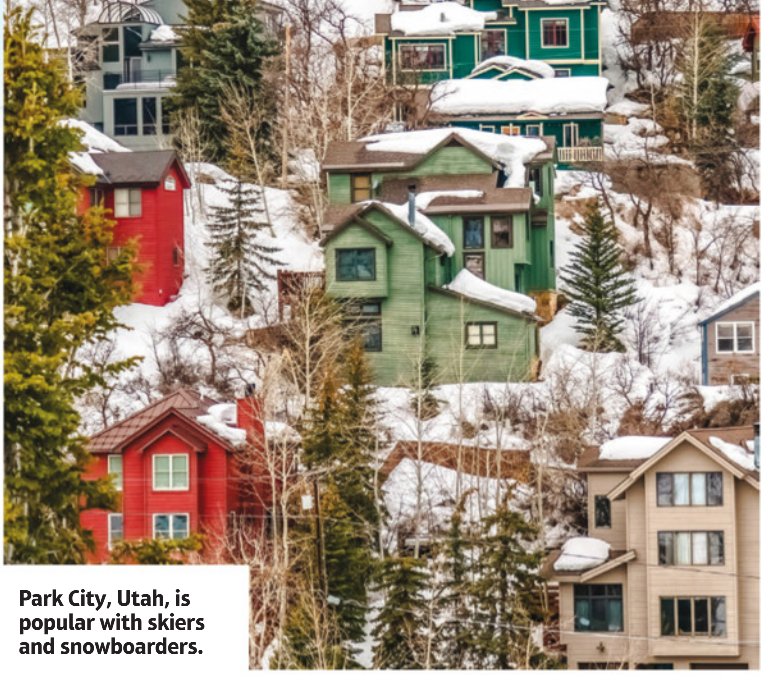
This bronze statue honors explorers Meriwether Lewis and William Clark.

During the 1860s and 1870s, the discovery of gold and the expansion of railroads brought more people to the Rocky Mountains. Others came because of the Homestead Act, which provided settlers with unoccupied public land for a small fee. These pioneers worked hard but had little success farming on the dry land until irrigation techniques were developed in the 1900s.

It wasn't long before the area became known as the "Wild West." It was a remote wilderness with little government, no laws, gunfighters, and roving bands of outlaws who robbed and killed miners and traders. Cattle thieves targeted the millions of steer that were brought to the region from Texas. Despite the thieves, ranch owners became wealthy from the thriving cattle industry. The cowboys who tended to the herds were hardworking men who worked for low wages. Frequent fighting broke out between the settlers and the Native Americans in the Wild West. The Native Americans were understandably upset that their ancestral lands were being taken over by outsiders. After many years of bloody fighting, they were forced to live on reservations.

For many people, the beauty of the natural surroundings outweighs the harsh climate. Few regions in the country contain such spectacular natural beauty and diversity. Rugged mountains cover only part of the landscape. The Great Plains of Montana are so flat and bare that the sky seems to go on forever. (Montana is nicknamed Big Sky Country.)

The region is also home to canyons, gorges, rolling plains, grassy valleys, forests, sand dunes, salt beds, geysers, hot springs, volcanic cones, mesas (land formations with cliff-like sides and flat tops), thousands of lakes, and several deserts. Most of Nevada and parts of Utah and Idaho are so dry that they are part of the Great Basin, North America's largest desert. It's a cold, winter desert, which means that it has long, dry summers and cold winters. The Red Desert in Wyoming is a high-elevation cold desert, and the Colorado Plateau in western Colorado and eastern Utah is classified as a semi-desert. It's home to



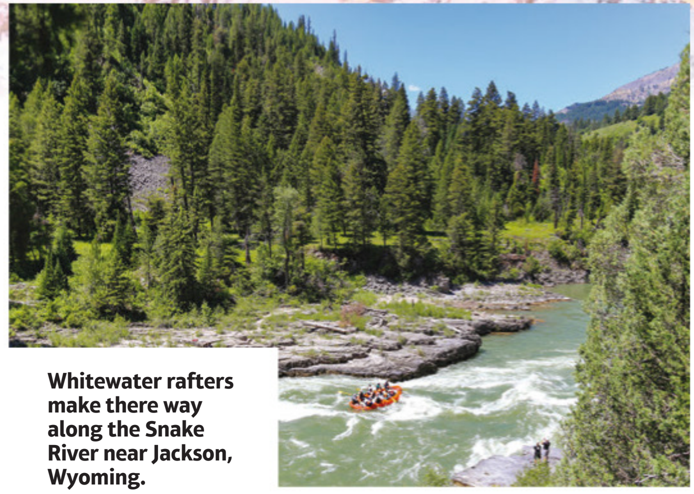
Park City, Utah, is popular with skiers and snowboarders.

The mountain village of Canmore, Alberta, is nestled amongst the Canadian Rockies.

A pair of wild horses race in the Red Desert.

Monument Valley in Utah features many awe-inspiring rock formations.

Cliff hanger! A hiker makes his way up a Montana mountain side.



Whitewater rafters make there way along the Snake River near Jackson, Wyoming.

A vintage steam engine takes tourists through the mountains of Colorado.

ROCKIES
uchealth
TOYOTA
Coca-Cola
Coors
WELLS FARGO
KING Soopers

Colorado's professional baseball team is aptly named the Colorado Rockies.

some of the greatest national parks on Earth. The Canadian Rockies experience cooler temperatures and more precipitation than the U.S. Rockies.

Several important rivers, including the Colorado, the Snake, and the Missouri, flow throughout the U.S region. They are used for irrigation and hydroelectric power and are treasured by fishermen. Important waterways that originate in the Canadian Rockies include the Fraser, Columbia, North Saskatchewan, Bow, and Athabasca rivers.

The Rocky Mountain region is generally sparsely populated with few large cities. The traditional industries of mining, ranching, farming, and forestry still exist, but the petroleum, natural gas, tourism, gambling (in Nevada), and service industries now employ most of the population.

Although the days of the Wild West are long gone, there is still much adventure to be found in the Rocky Mountain region. The people who live there have the same independent spirit of their ancestors and a love for the rugged outdoors. They work to preserve the history and the beauty of the land of "purple mountain majesties."

Christine Graf is a frequent contributor to FACES.

CONTINENTAL DIVIDE TRAIL
NATIONAL SCENIC TRAIL
The Colorado Trail

The Continental Divide

The Rocky Mountains are part of the continental divide called the Great Divide. The Great Divide splits North America into eastern and western slopes. The geological border separates the directional flow of rivers and streams east and north to the Arctic Ocean or Hudson Bay from those draining westward to the Pacific Ocean.

WILD, W
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by Todd Tuell

A huge storm spins over Montrose, Colorado.

From season to season, day to day, even minute to minute, it's quite a challenge to predict weather in the Rockies.

At different times during the year, you might find an umbrella, a bottle of sunscreen, a windbreaker, or a hat and gloves lying around your house. In other regions, these items identify the current season. In the Rocky Mountains of the United States and Canada, those same items can mark the weather patterns of a single day.

When you think of the Rocky Mountains what comes to mind? Typical responses are mountains, skiing, and lots of snow. Heavy snows and avalanches do threaten the Rockies. The weather patterns in this region, however, might surprise you. Colorado and Wyoming boast more than 300 days of sunshine each year. The summer outdoor tourist industry, including golf, white-water rafting, and mountain biking, is now an even bigger business than snow skiing.

Weather here, however, is far from predictable. Beautiful, sunny days can turn severe at a moment's notice.

"Whether it's tornadoes, blizzards, avalanches, lightning, or flash-floods," says Mike Nelson, chief meteorologist at KMGH Channel 7 News in Denver, "around here the weather can be life-threatening every month of the year."

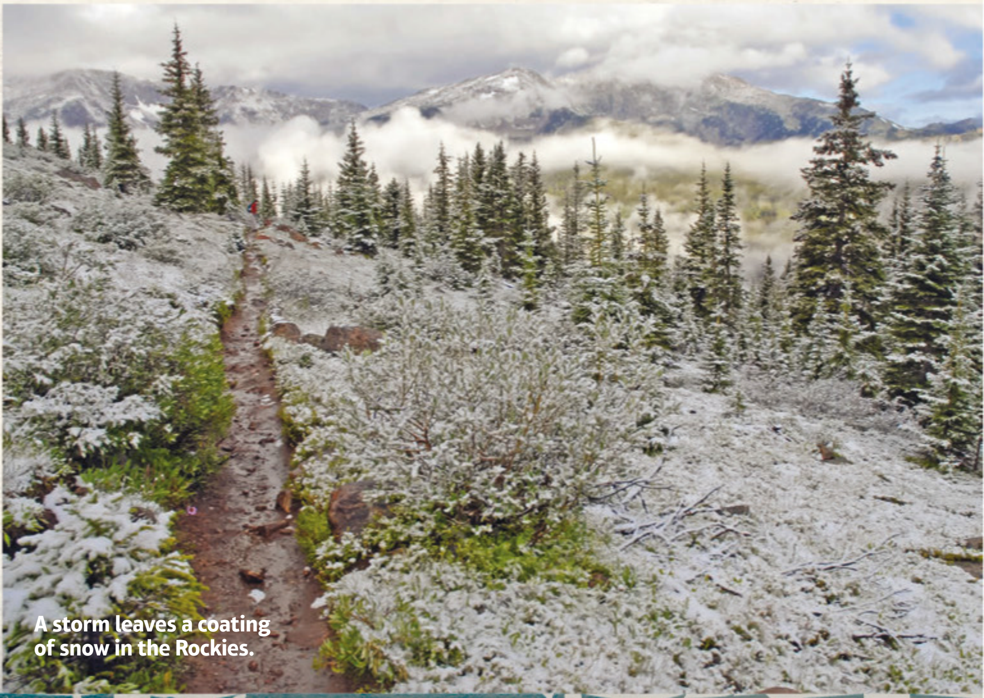
You can be on one side of the Continental Divide where it might be sunny and warm, drive 1.7 miles through the Eisenhower Memorial Tunnel (the highest vehicular tunnel in the world at 11,158 feet above sea level), and come out the other side in the middle of a relentless blizzard.

How can there be such drastic differences over such a small area? "That 14,000-foot wall of mountains makes all the difference in the world," Nelson explains. Because of the mountains, there develops a constant battle of upslope and downslope wind conditions. As wind forces push up the mountain, air is cooled. Any moisture in the air condenses bringing rain, snow, and one other very serious consequence—hailstones. The eastern slope of the Rocky Mountains, typically called the Front Range, is one of the most hail-prone areas in the United States. When very strong spring and summer storms are pushed quickly upward in the atmosphere, the moisture in the clouds attaches and freezes to ice crystals and dust particles. Updrafts and gravity create a juggling act with these forming ice particles. Each time the hailstones cycle up and back down in the cloud, more supercooled water freezes. Most hailstones grow to about half an inch in diameter. However, it's not unheard of to find hail the size of golf balls, baseballs, and in certain circumstances as large as grapefruit.

In the warm, arid summer months, these same convective (con-VEK-tiv) currents inside of clouds create intense amounts of static electricity. Just like when you rub your feet across the carpet, the movement within a thunderstorm strips electrons from particles in the clouds. This generates a negative charge that collects at the bottom of the thunderhead attracting a positive charge from the ground. Along with Florida, the Rockies have the highest concentration of lightning strikes in the United States. On a single stormy day in Colorado, it's possible to have 15,000 lightning strikes. According to the National Center for Atmospheric Research in Boulder, Colorado, it's the

Colorado receives more lightning strikes than almost anywhere else in the United States.

Hail is common along the Rockies and the stones can be as large as golf balls.



A storm leaves a coating of snow in the Rockies.

lifecycle of building, maturing, then dissipating. These mild storms produce outflows of cool, moist air. Under certain conditions these outflows collide and swirl back together. A new rotating thunderstorm can form and literally spin a tornado from the surface up into the cloud, rather than from the cloud downward. This is called a landspout. They are very sudden and often short-lived. Nevertheless, they have the potential of being very dangerous.

Even the snowstorms are unique in this part of the world. The heaviest months of snow do not come in the winter, but rather as spring blizzards. It's not uncommon to have an Easter egg hunt with a fresh blanket of snow. From season to season, day to day, even minute to minute, it's quite a challenge to predict weather in the Rockies. Nelson has reported the weather in many areas of country, and in each region, he's heard that if you don't like the weather, just wait 10 minutes for it to change. "What I tell my colleagues," he says, "in Colorado, if you don't like the weather, you don't even have to wait the 10 minutes."

On a calm evening when the sun sets in pink and orange behind the purple mountain majesties sung of in "America, the Beautiful," you might understand why settlers braved the elements to come West. The weather can be both as beautiful and as rugged as the mountains themselves.

ice crystals that can still form within clouds at these high altitudes even in summer months that make the high concentration of lightning strikes possible.

Looking out across the rolling landscape along the edge of the Rockies during an early summer storm, you might see a terrifying sight. Tornadoes are one of the most sudden and severe of weather threats. The Rocky Mountains form the western border of what is called Tornado Alley. According to Nelson, there is a big difference in the funnel clouds you see here compared to other parts of the country. You do not need all the classic ingredients to see a twister come your way. Instead, all you might need is a handful of thunderstorms going through their

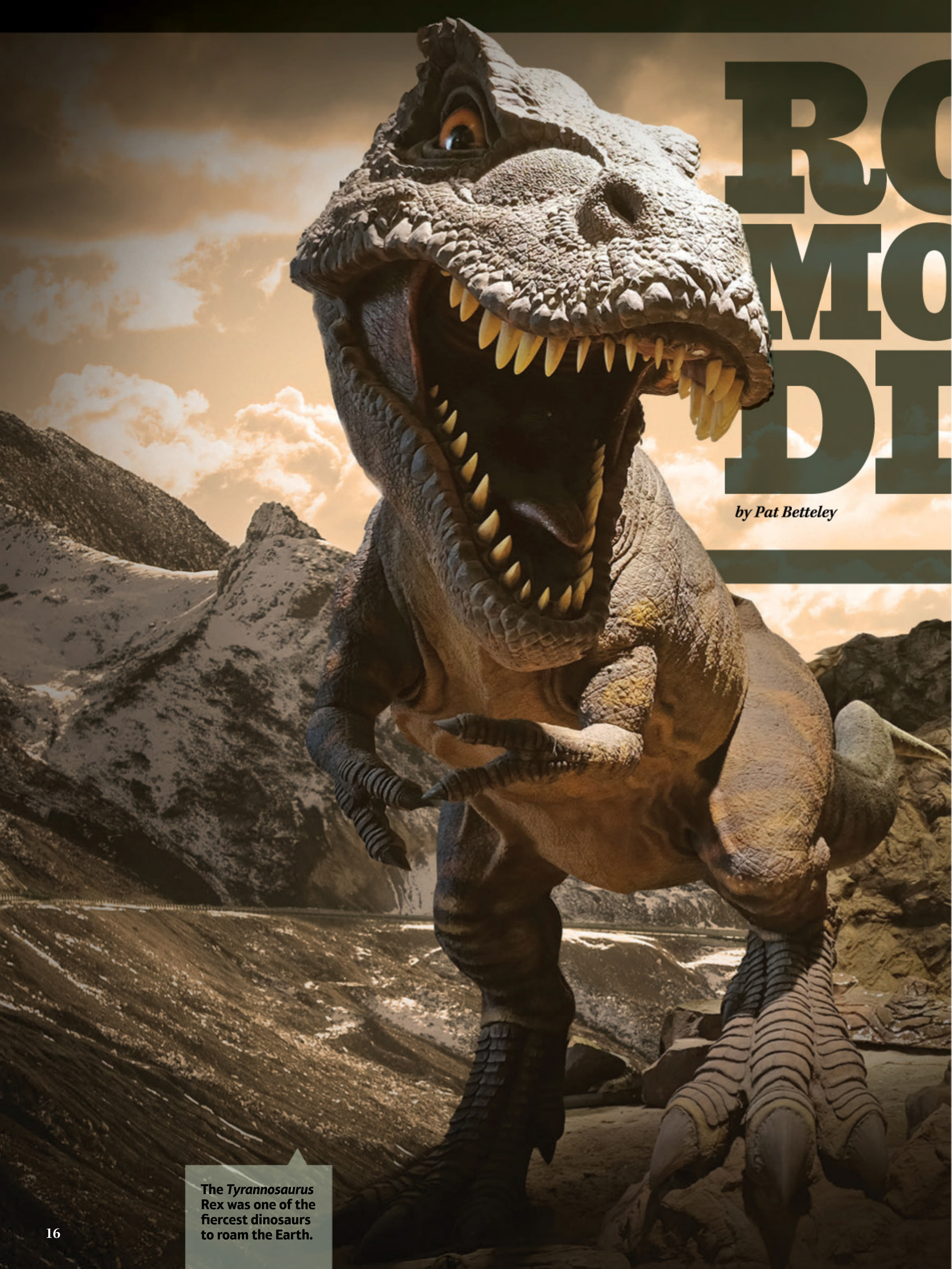
FAST FACTS

- Several locations in the Canadian Rockies experienced record-breaking cold temperatures during a cold snap in December 2022. Lake Mildred experienced a daytime low of -22.9 degrees Celsius (-9.22 degrees Fahrenheit). BRRR!
- The greatest snowfall recorded in a 24-hour period was 75.8 inches in Silver Lake, Colorado, on April 14–15, 1921.
- The high concentration of electrical storm activity factored into electricity pioneer Nikola Tesla's decision to move his research laboratory to Colorado Springs in 1899.

Todd Tuell lives in wild-weather prone Colorado.

RO MO DI

by Pat Betteley



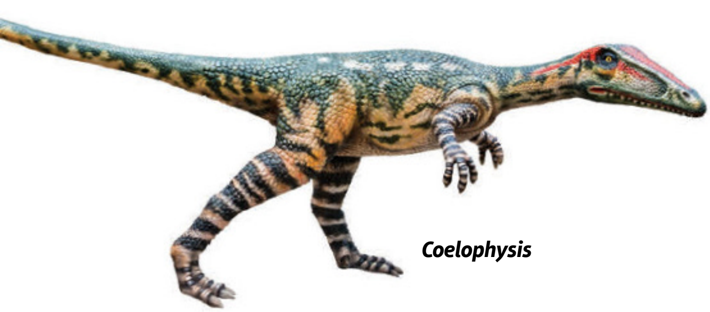
The *Tyrannosaurus* Rex was one of the fiercest dinosaurs to roam the Earth.

OCKY OUNTAIN NOS

Of all dinosaurs, nearly a quarter of them were found in or around the Rocky Mountains. Using fossil evidence, scientists can tell the story of three prehistoric time periods in which they lived, the Triassic, Jurassic, and Cretaceous. About 250 million years ago, the continents and oceans were in different places on Earth than they are today. So, a dinosaur might have lived near a shallow sea in the past, which is now the top of a mountain. Also, not all species of dinosaur lived at the same time, and not all became extinct at the same time. Read on to find out which dinosaurs lived near the Rockies and how they lived.

THE RISE OF THE DINOSAURS IN THE TRIASSIC PERIOD: 252-201 Million Years Ago (MYA)

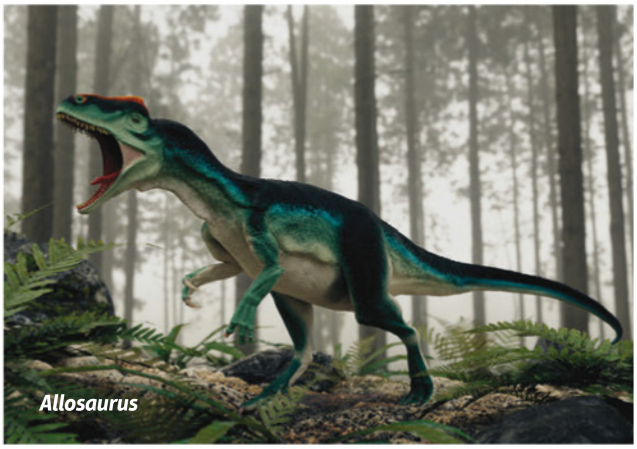
Our dino story begins 208 million years ago in New Mexico with a small, carnivorous (meat-eating) dinosaur called *Coelophysis* (see-lo-FIE-sis). This fast, light-footed dinosaur stood upright and walked on two legs. It was about three feet tall at the hip, but could grow to 10 feet long from head to tail. Because of its light bones, the *Coelophysis* weighed between 50 and 100 pounds. Fossil clues tell scientists that this dino lived and hunted in groups in forests near streams and lakes.



Coelophysis

DINOS LIVING THE DREAM IN THE JURASSIC PERIOD: 201-145 MYA

Allosaurus, (al-uh-SAWR-us) was the fiercest predator of its time. Fossils discovered in Utah, Wyoming, and Colorado tell us that "Big Al" lived about 145 million years ago. This dinosaur could grow up to 40 feet from head to tail, ran on two feet, and could sprint as fast as a car driving through a neighborhood. With eight-inch claws, and 70 sharp teeth, large herbivores (plant-eaters) like *Stegosaurus* had to watch out.



Allosaurus

Stegosaurus (STEG-uh-sawr) means "covered lizard," named for the huge bony plates along its back. It lived in wooded areas in Colorado, Wyoming, Utah, and Oklahoma. This 2-ton plant-eater lumbered along on four legs and grew to 21 feet in length and 10 feet tall at the hip. The two to four pairs of spikes on its tail could deal a mighty blow to its predator, *Allosaurus*.

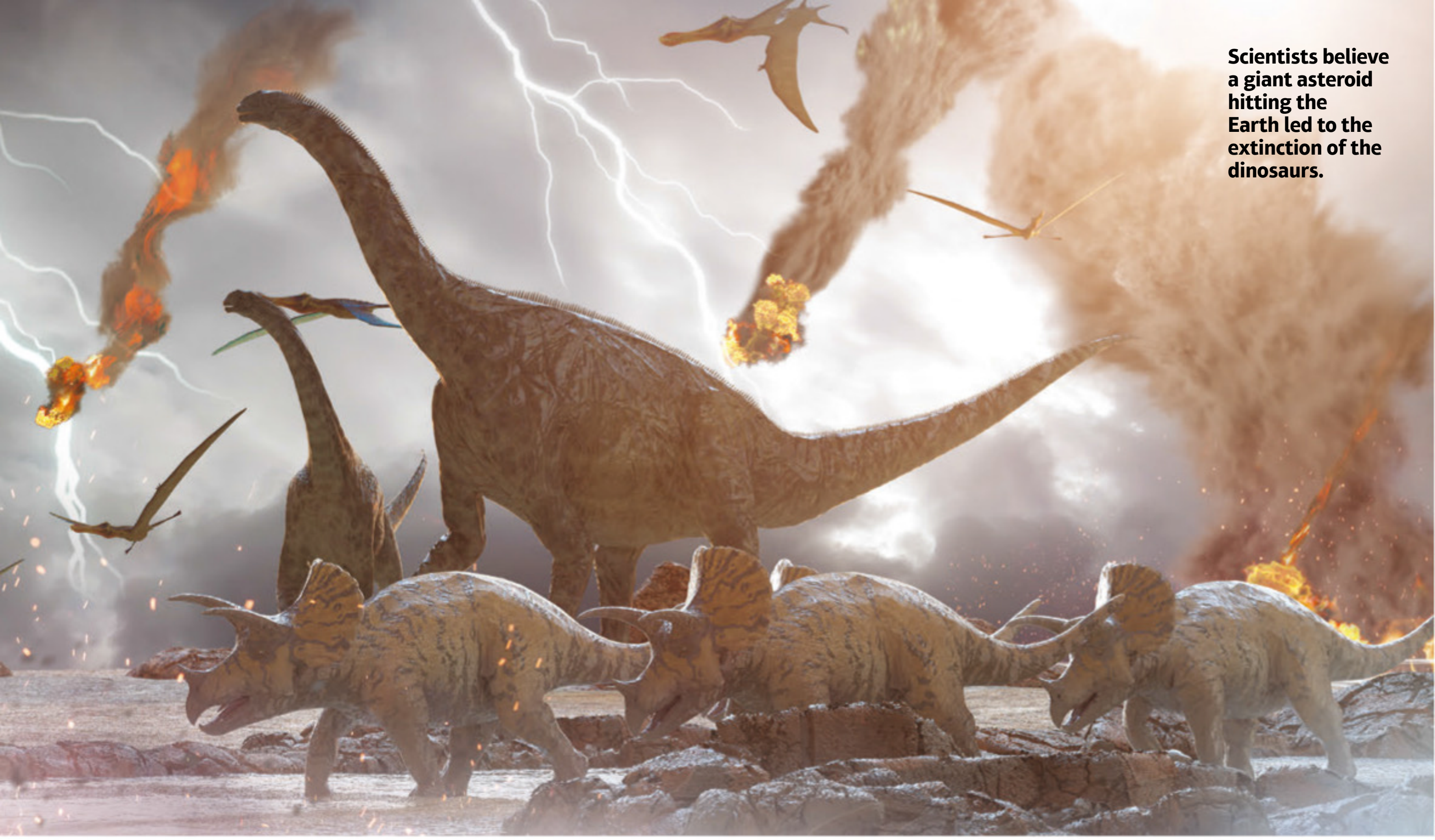
Stegosaurus

DINO DIE OUT IN THE CRETACEOUS PERIOD: 145-66 MYA

During the Cretaceous (kruh-TAYSH-us) period, the Rocky Mountains were formed, and an inner sea divided North America into three islands. Scientists think that these changes in environments caused new species to form.

One such species was the elephant-sized *Triceratops* (try-SER-uh-tops). It grew to 30 feet in height and weighed up to 16,000 pounds. *Triceratops* was an herbivore that ate shrubs, ferns, and palms. It had 800 teeth that could grow back, arranged in columns on each side of its jaw. Its fossils have been found in Montana, South Dakota, and North Dakota along the shores of an ancient sea. The head of the *Triceratops* was 1/3 the

Triceratops



Scientists believe a giant asteroid hitting the Earth led to the extinction of the dinosaurs.

length of its body. One skull bone found was 8.2 feet long. *Triceratops* had three horns, two huge ones above its eyes, and a smaller horn on its snout. An adult's horns could grow to three feet long, and were used in combat against its main predator, *Tyrannosaurus* (ti-RAN-uh-sawr-us) *Rex*.

T. rex was the largest and fiercest of all dinosaurs. It had a massive body, 60 eight-inch long, super sharp teeth, and the strongest bite of any land animal—ever! This fearsome dino could have crushed a car in its jaws. Compared to other dinosaurs, its brain was twice as large, so it might have been more intelligent and had a better sense of vision and smell than others, too. In Greek, its name means "tyrant lizard king." Though *T. rex* ruled over North America and Asia 68 million years ago, it was no match for the giant asteroid that slammed into Earth 66 million years ago, causing the extinction of the dinosaurs.

T.rex

Though it's sad that dinosaurs disappeared, their exit was great news for lots of creatures, like cats, elephants, and dolphins that were able to find new homes.

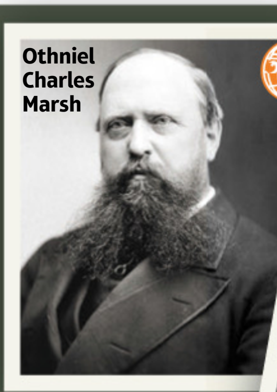
Did you know that there are still some dinosaurs living? They are called. . .

BIRDS!

Birds are descended from dinosaurs. But luckily, our chickens aren't 80 feet long!

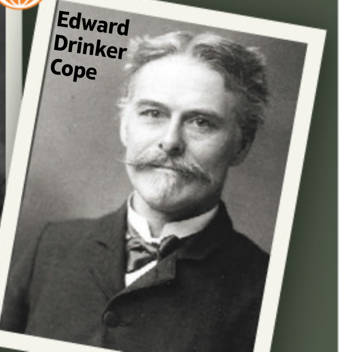
DINO HUNTERS BEHAVING BADLY:
THE BONE WARS

All but two of the dinosaurs in this article were discovered by either Edward Drinker Cope or Othniel Charles Marsh. These two men competed to find the most fossils during the late 19th century in Colorado, Nebraska, and Wyoming. They used bribery, theft, and destruction of bones to ruin each other's work and reputation. Despite all the bad behavior, they discovered and described 142 new species of dinosaurs.



Othniel Charles Marsh

They sure had a bone to pick.



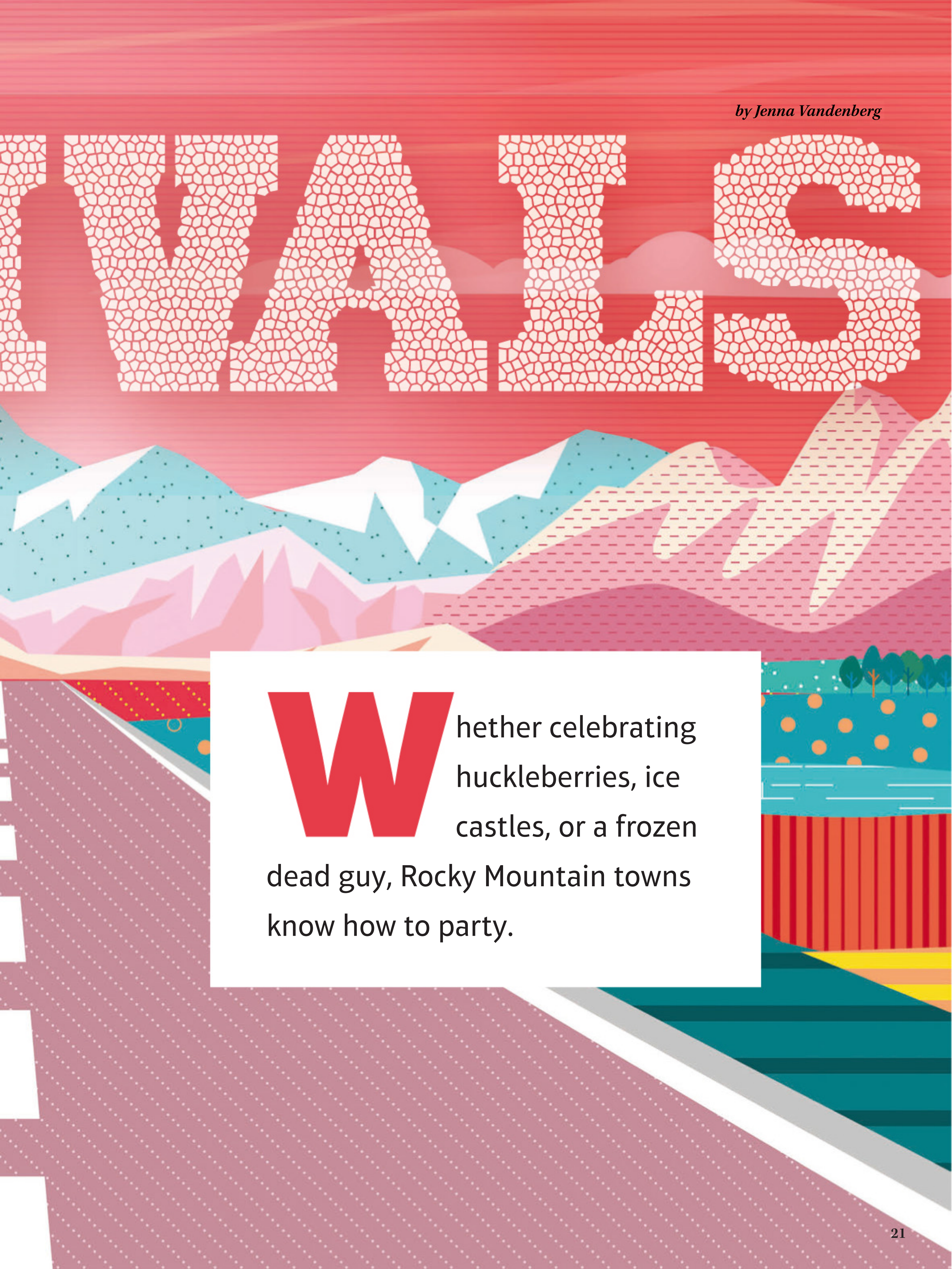
Edward Drinker Cope

ROCKY MOUNTAIN
FESTI

FROZEN DEAD
GUY DAYS

IVALS

by Jenna Vandenberg



Whether celebrating huckleberries, ice castles, or a frozen dead guy, Rocky Mountain towns know how to party.

In New Mexico, the Rocky foothills swell up near Pie Town, where the **Pie Festival** is celebrated each September. There is a fun run, horseshoe tournament, and folk bands. At noon, the music pauses to announce Pie Royalty and the Kids' Games winners. Next is a no-hands pie eating contest and a horned toad race (bring your own toad). The night ends with dancing under the stars and taking one last bite of pickle upside-down pie.

In 1989, a Norwegian died. His body was frozen in a cryonics facility and shipped to his grandson's backyard in Nederland (ned-er-land), Colorado. Locals, sick of giving directions to the media, put up a sign: "Directions to the Frozen Dead Guy." The name stuck. Coloradans celebrated **Frozen Dead Guy Days** with coffin races and frozen turkey leg bowling until the festival was canceled in 2023. Is the festival as dead as the frozen Norwegian? Or will it reemerge from the ice to live again? No one knows.

In 2002, Utah's Soldier Hollow hillside was an Olympic skiing site. Now, it hosts the **Soldier Hollow Classic Sheepdog Championship and Festival**, providing spectators the perfect spot to watch dogs and sheep navigate the course. "The dogs competing are border collies," explain Judy Klautt and Carol Clawson, "who all trace their roots back to one common ancestor, a dog named Old Hemp."

Huckleberries

The idea for **Cheyenne Frontier Days** came to railroad agent Frederick Angier in 1897 as he watched cowboys coax a horse into a boxcar. Angier realized watching cowboys is pretty exciting. A festival was born. The next year, Buffalo Bill brought his Wild West Show to Cheyenne. Frontier Days remains one of the largest rodeos in the world.

At the first **Orofino Lumberjack Days** in 1947, the best dressed kids won prizes, the oldest residents were honored, and logs were chopped. The old-fashioned spirit continues as loggers compete in axe-throwing, power sawing, and tree topping competitions. Birling, where lumberjacks balance and spin floating logs with their feet, is also popular.

Frozen Dead Guy Days

FROZEN DEAD GUY DAYS
DAYS
Nederland Co

In 1805, Lewis and Clark camped in Great Falls, Montana. Each summer, history is reenacted and celebrated with a black powder ceremony, Native American dances, and music. The **Lewis and Clark Festival** also hosts a river cruise through the towering canyons that Meriweather Lewis named the Gates of the Mountains.

After failing to find gold in California, Billy Barker tried British Columbia, where he finally found riches. More than 150 years later, Quesnel (kwa-nel) celebrates **Billy Barker Days** with a pickleball tournament, rodeo, amusement rides, geocaching, and a parade. A laser light show concludes the golden weekend.

Huckleberries love mountains. The higher you go, the more purple berries

Classic Sheepdog Championship and Festival

All right—they herd you.

Lewis and Clark Festival

you'll find. At the **Castle Mountain Huckleberry Festival** in Alberta, folks board chair lifts and enjoy mountain peaks as they get to the best berries. The festival continues at Castle Mountain Resort with music, face painting, mini-golf, and scavenger hunts.

Yellowknife, in the Northwest Territories, isn't quite in the Rockies, but has a festival too cool to leave out. Every winter, crews at Yellowknife build an ice castle atop Great Slave Lake for the **Snowking Winter Festival**. The castle, which holds hundreds, is a concert space, puppet theater, and art gallery. "There's a unicorn section to climb on," says Myriad, age 9. Her father is on the castle building crew, so she gets early access to test the ice slides. "If you wear slippery clothes, you slide faster," Myriad advises.

Alyeska Slush Cup

Snowking Winter Festival

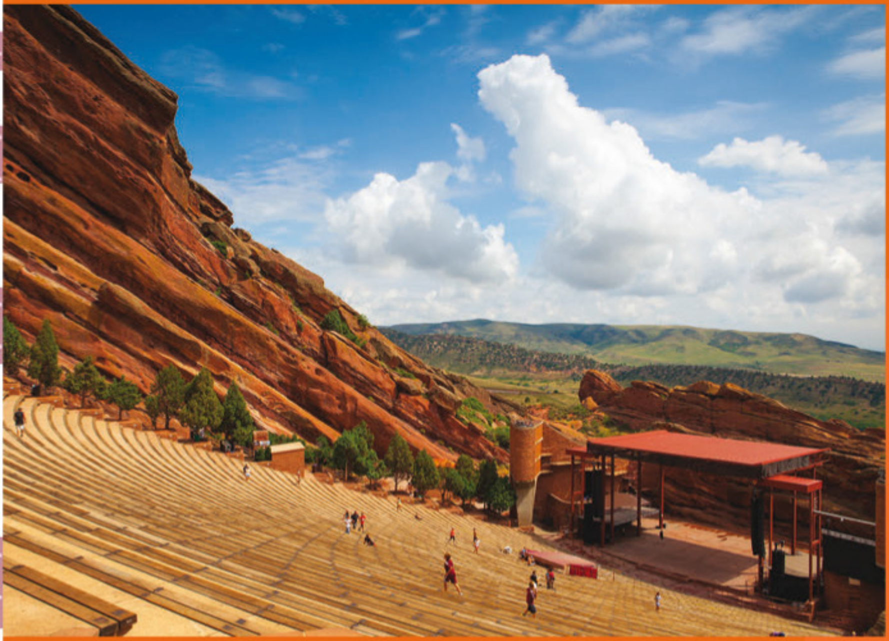
Head west from Yellowknife and cross the Rockies, you'll find Mount Alyeska (al-ee-EHS-kah) in Girdwood, Alaska, where competitors of the **Alyeska Slush Cup** ski down a mountain and skid across pools of water. As if that doesn't sound hard enough, competitors do it in full costume. "Most people don't make it," says Ben Napolitano, mountain marketing manager. But every once in a while "someone will do a backflip and ski out." Afterwards, a bracket-style tug of war takes place over the freezing pools.

Jenna Vandenberg is a writer, high school teacher, runner, and parent. She has lived in the Rocky Mountains, the Sierra Nevadas, and now lives near the Cascade Range.

WHERE in the World?

Do you know where our friend Globey is enjoying his copy of FACES?

Answer is on page 48.



Here is a hint: This spot is a great place to take in a concert.

Cricket
Faces
Rockin' Through the Rocky Mountains
Mountain Madness

by Marcia Amidon Lusted

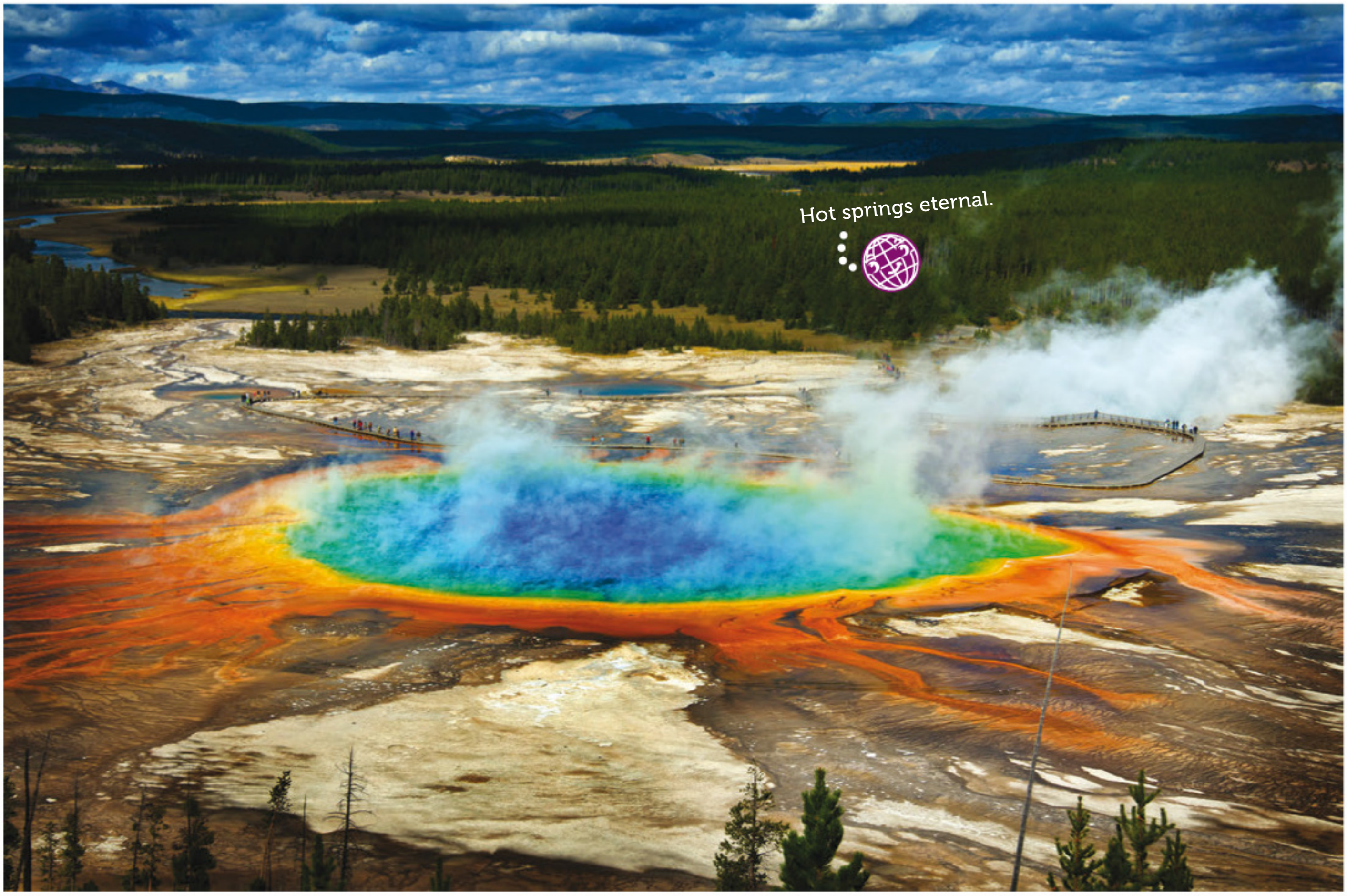
ROCKY MOUNTAIN NATIONAL PARKS:

Something for Everyone

The Rocky Mountains are one of the most amazing natural features in North America, stretching 3,000 miles from New Mexico all the way to western Canada. And because this mountain range includes so many different ecosystems, with a huge variety of animals, plants, and geological features, it's no surprise it hosts many national parks in both the United States and Canada. The oldest—Yellowstone National Park—was founded in 1872, but other parks followed quickly. The newest is Black Canyon of the Gunnison National Park, created in 1999. Here are a few of the national parks in the region dedicated to preserving the unique environments of the Rocky Mountains.

Rocky Mountain National Park ▸

The first of the great national parks in the Rocky Mountains, this park includes 415 square miles of land across the Continental Divide. Because of its size, visitors can experience high mountain peaks, grassy valleys, tundra, hidden alpine lakes, and beautiful waterfalls. Rock climbers can scale a thousand feet up the sheer rock cliffs of Longs Peak, and there are many hiking trails. Visitors can also drive the Trail Ridge Road to the Alpine Visitor Center, the highest visitor center in the entire U.S. National Park System.



▴ Yellowstone National Park

Yellowstone is probably one of the most well-known national parks. President Ulysses S. Grant designated Yellowstone as the very first national park in the United States on March 1, 1872. At 3,472 square miles, Yellowstone is bigger than the states of Delaware and Rhode Island combined. It is famous for its hot springs, boiling mud, fumaroles (openings in the earth's crust that spew hot gases) and geysers such as Old Faithful, which shoots boiling water more than 100 feet into the air. Yellowstone also has its own canyon and magnificent waterfall. Visitors can see bison, elk, wolves, and grizzly bears.

Grand Teton ▸ National Park

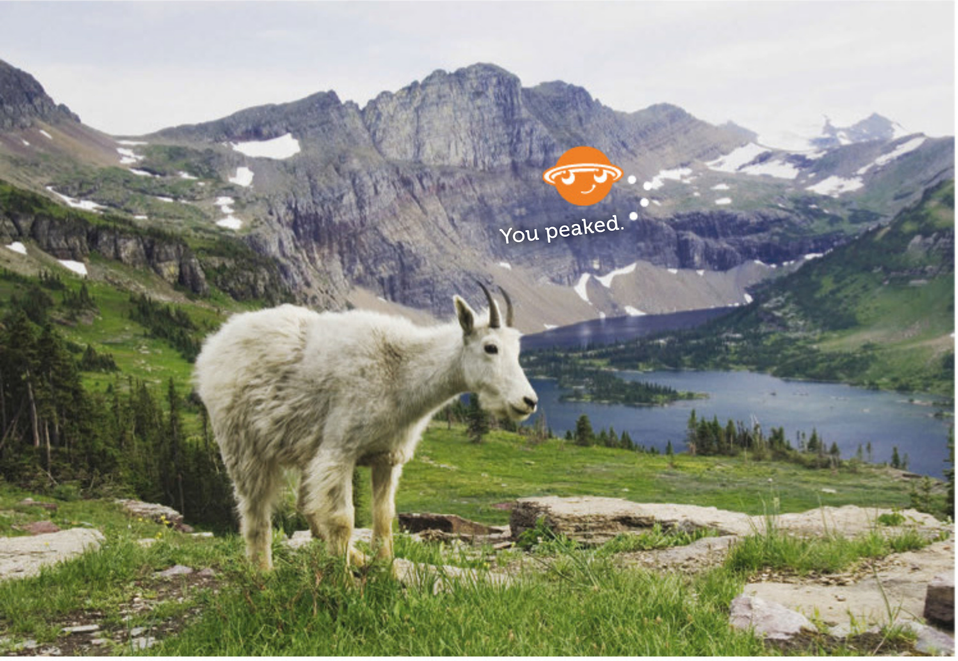
Travelers can leave Yellowstone on a parkway that brings them right to Grand Teton National Park, just north of Jackson, Wyoming. Humans have lived in the area for more than 11,000 years, and traces of this history can be found throughout the park. Grand Teton has many opportunities for hiking, camping, boating, rock climbing, and viewing wildlife, as well as amazing views of the Grand Teton Mountain Range.

▴ Great Sand Dunes National Park

The Rocky Mountains may not seem like a place with sand dunes. But Great Sand Dunes National Park has the tallest sand dune in the United States, towering 750 feet. These dunes were formed by the sand and sediment carried down from the mountains by rivers and streams. Strong winds then picked up the sands and blew them toward the Sangre de Cristo mountains where they were sculpted into high dunes. At any time of year, skiers, sledders, and snowboarders come to Great Sand Dunes National Park to ride down these sandy slopes the same way they would on snow.

Banff National Park

Banff National Park is located near Calgary, in Alberta, Canada. Banff was Canada's first national park, and is known for its mountain peaks, its hundreds of glaciers, and glacier-fed lakes such as Lake Louise. Banff has many hiking trails and campsites, and winter visitors snowshoe, ski, and skate.

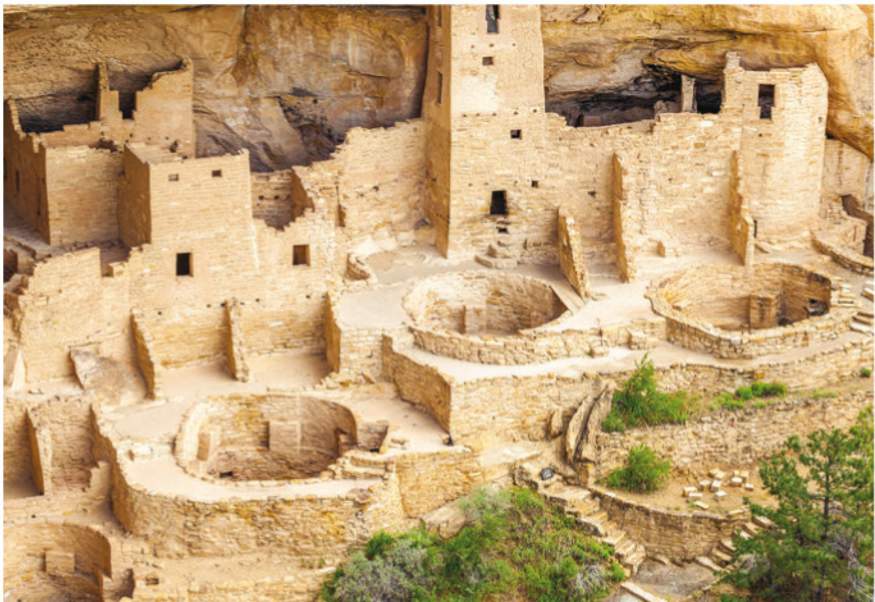


Glacier National Park

Located in Montana on the border of the United States and Canada, Glacier National Park is sometimes called "the crown jewel of the continent" for its beautiful mountain peaks and many glaciers. One of the park's most famous features is the Going-To-The-Sun Road, which is 50 miles long and crosses the Continental Divide. The road gives travelers views of the mountains and valleys, as well as cascading waterfalls, glaciers, and wildlife, including 500-pound elk, bears, and Bighorn sheep.

Mesa Verde National Park

Mesa Verde is not only a national park, but also a UNESCO World Heritage Site. While it includes beautiful landscapes, it is best known for its archaeological sites, including hundreds of ancient cliff dwellings. The Ancestral Puebloan people built their homes beneath the overhanging cliffs of mesas for more than 700 years, from 600 to 1300 C.E. The park is also the home of more than a thousand different species of animals and plants, some of which can't be found anywhere else.



Hike, Ski,

Sports in the Rocky Mountains

by Hayley Kim

Once banned at many resorts, snowboarding is now one of the most popular snow sports.

Climb

A playground for casual athletes and pros alike, the Rocky Mountains are the perfect place for outdoor adventure. National parks across the mountain range are home to peaceful hikes, thrilling summits, and enough snow to board, ski, shoe, and anything else you can imagine. These parks have activities for all skill levels, at all elevations, and in all seasons—each with their own thrilling nature views. Climb up the mountains and take a look at all the sports the Rocky Mountains have to offer.

The resorts of Park City, Utah, attract skiers and snowboarders from around the world.

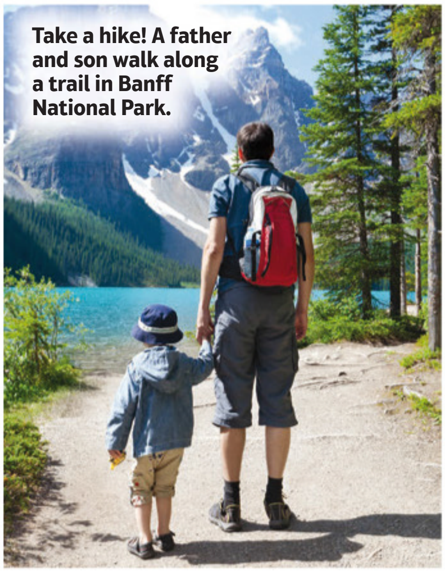
On the Ground

For a beginner, the best place to start is on the ground. Hiking, or walking in nature, can often start at the base of the mountains. Hiking trails are everywhere across the Rockies, and while their difficulty varies, hikes can be some of the easiest ways to experience the mountains. National parks offer accessible trails for those who prefer smooth, level paths, as well as hikes that present rough terrain and steep climbs up closer to mountain summits. Hikers can move their bodies and see beautiful views at their own pace. With proper footwear, water, sun protection, and a trail map, anyone can become a hiker.

Picking up speed, some trails in the Rockies are for more than just human feet. Special mountain bike trails weave through wooded areas. Like those for hiking, bike trails come in many difficulty levels, and some routes reach higher elevations with steeper declines than others. Mountain bikers are prepared to ride through trees and over roots, but they also know to expect to see nature in a whole new way.

At the Slopes

Come winter, the Rocky Mountains are an icy paradise, and adventurous athletes put on snowsuits and strap on helmets to ski and snowboard through freshly fallen snow. Many visitors will ride ski lifts to the top of the slopes, before zipping down the snowy mountainside. Skiers attach their boots to skis and use ski poles for balance. Snowboarders attach both boots to one larger board. Both glide across the snow on specially marked trails. Trail difficulties range from green circle (an easy slope) to double black diamond (a very difficult slope), giving opportunities for all experience levels. Some of the most popular places to ski and snowboard are here, including Breckenridge, Colorado and Park City, Utah. Even Olympic athletes train in the Rocky Mountains.

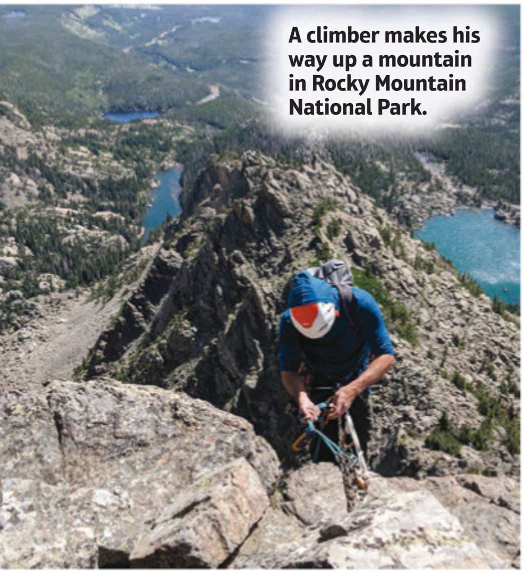


Take a hike! A father and son walk along a trail in Banff National Park.

For those who visit the Rockies in winter but aren't interested in gliding

It's all downhill from here.

Hitting the slopes. Skiers enjoy a sunny day in Colorado.


A climber makes his way up a mountain in Rocky Mountain National Park.

down the mountainside, snowshoeing and cross-country skiing offer wintry fun on more level ground. Snowshoeing is very similar to hiking, and trekkers strap large, flat snowshoes to their feet before embarking on chilly walks. Cross-country skiing is like downhill skiing, but these skiers glide across more level, snow-covered trails. Skis and ski poles for this sport are slightly longer and lighter than those used when going downhill. Many hiking trails are available to snowshoe in the winter, while some parks set up specific cross-country ski trails. Both sports allow athletes to experience the snowy beauty of the Rocky Mountains at a more relaxed pace.

Climbing Up

Some athletes seek more than trips down or around the Rocky Mountains. Rock climbers set their sights upward. Many different forms of rock climbing take place here, and each requires its own special technique. Often, climbers begin by hiking mountain paths to reach the place they plan to climb. They then ascend mountainsides and rock formations using their arms, legs, and specialty gear such as rope, anchors, and carabiners. Climbers try to reach the summit of a mountain or endpoint of a climbing route without falling.

There are many popular climbing destinations across the parks in the Rockies, and all of them test a climber's endurance and strength while providing stunning views. Some of the most popular routes include the Casual Route on the Diamond in Rocky Mountain National Park and Upper Exum in Grand Teton National Park. Climbs in the Rockies primarily take place from early spring through late fall, though some also climb in the winter. Athletes climb to be close to nature and for the fun of the climb, but also for the satisfaction of working toward their destination.

No matter the season, no matter the skill, the Rocky Mountains are the perfect place to experience outdoor adventure. Every activity brings the chance to get close to nature and see peaks, valleys, trees, and wildlife. The mountain range extends more than 3,000 miles, so sport options will vary by location. But in the Rockies, there will never be a shortage of new things to experience. So, which outdoor sport will you try?

Hayley Kim is an assistant editor at Faces. She loves going on long hikes and always eats the M&M's first in her trail mix.

MOVIN' ON UP!

by Albert Garcia

Did climate change influence the cliff dwellers of the American Southwest?

Imagine stepping outside your home and finding yourself hundreds of feet high, perched dangerously on the edge of a steep cliff.

In the 13th century, this was daily life for many families in the American southwest. After living for more than 1,000 years on fertile canyon floors and mesas, people suddenly moved into homes built into the recesses of vertical canyon walls. Some of these remaining adobe structures are nearly impossible to reach even by today's most experienced rock climbers. Within a couple of generations, however, the cliff-side homes were abandoned. For decades, archaeologists have been scratching their heads with their trowels wondering what exactly happened.

Could a changing climate have been the culprit?

Hard Times and Hard Climbs

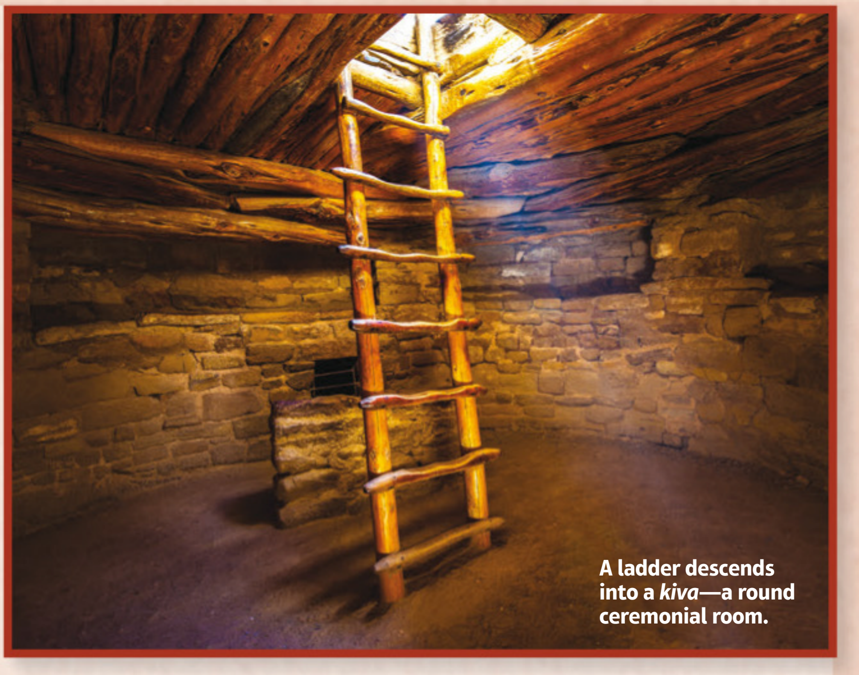
As early as 1500 B.C.E., the Four Corners area was home to a culture known as Ancestral Puebloans. By 1100 C.E., these people successfully mastered their environment and became the largest population to live in the area until modern times.

But something changed. By the mid 1200s, the archaeological record shows an increasing presence of violence: more weaponry and warlike imagery, homes burned with the occupants inside, and unburied skeletal remains with signs of excessive trauma. Villages on the canyon floors disappeared. People either moved into fortress-like homes in protective positions along cliff-sides and steep mesas or away from the area altogether.

The dwellings usually were built within sight of other cliff dwellings, suggesting that the residents may have been preparing to help one another. Then, just as

In the 13th century, Ancestral Puebloans moved into homes built into canyon walls.

mysteriously, these homes were abandoned in less than a couple of generations. The Cliff Dwellers moved on, most likely becoming today's Zuni and Hopi tribes of northern Arizona and southern New Mexico.


A ladder descends into a *kiva*—a round ceremonial room.

Sifting for Clues

An archaeologist's job requires painstaking research using every method possible. One useful technique, dendrochronology, analyzes tree rings to see how they grow over time. The results tell us what past climates were like.

Pieces of wood from the region show that beginning around 900 C.E. and lasting 300 years, more rain fell in the Southwest. Food production increased, the population grew, and large buildings were constructed. One such building was Pueblo Bonito (Spanish for "Pretty Village") in Chaco Canyon, New Mexico, which stood five-stories tall and consisted of more than 800 rooms.

This period of abundant resources was followed by a mini ice age, delivering less rain, fewer resources, and stress on a finely balanced system. The climate shift is also evident in Europe's history: Crop failures in the early 1300s led to widespread famine.

Did Climate Change Cause Cultural Change?

While this explanation seems like a logical conclusion, the Ancient Puebloans had survived earlier droughts. There may have been several cultural and/or environmental factors that compelled families to leave their ancestral lands, from a change in religious beliefs to the overuse of local trees for firewood and construction.

There are still many mysteries and disagreements as to what happened to the Cliff Dwellers. What is certain, however, is that a changing environment can impact the way we live. Thus, understanding the past may help us plan not only for the present but also for our future.

Albert Garcia is a researcher and geographic information systems specialist at the South Central Coastal Information Center at California State University in Fullerton, California.

DEAR ALEX

compiled by Todd Tuell

This month, Alex corresponds with Alexander, a 12-year-old competitive skier with Ski and Snowboard Club Vail in Vail, Colorado. The two talked about the rigors of high-level competitive training while attending middle school.

Hello, Alexander,

I like your name. I'm Alex, too. I am a 13-year-old from Golden, Colorado. I heard you ski moguls competitively. What made you decide to choose moguls over other types of skiing?

I used to ski almost every weekend when I was younger, but I only tried skiing moguls a couple of times. It's kind of intimidating. I might try to get back into skiing some time soon. My dad lives in Winter Park.

How long have you been skiing competitively? Do you travel a lot for competitions?

I hope to hear about it soon!

Sincerely,

Alex

Alex at school

Alexander

Hey Alex,

My name is Alexander, and I am a seventh grader at Vail Mountain School. I am also a full-time mogul skier for Ski and Snowboard Club Vail. When I was 8, I started the moguls program and fell in love with it and have continued mogul skiing since then. This year I will travel to Steamboat, Winter Park, Telluride, A-Basin, and

Aspen for competitions. I train five days a week. During the school week, I ski in the mornings and then stay at school later to catch up on my work. My school is not a boarding school. I live at home with my parents.

What sports do you like to do in Golden? What is your school like? Have you ever been to Vail?

I will send some photos of me skiing soon as I have a competition this weekend.

Sincerely,

Alexander

Alexander hits the slopes.

Hi, Alexander,

I'm not much of an athletic person, but I like to roller skate sometimes. I got a skateboard this year for Christmas, so I am hoping to learn how to use it once the snow clears up.

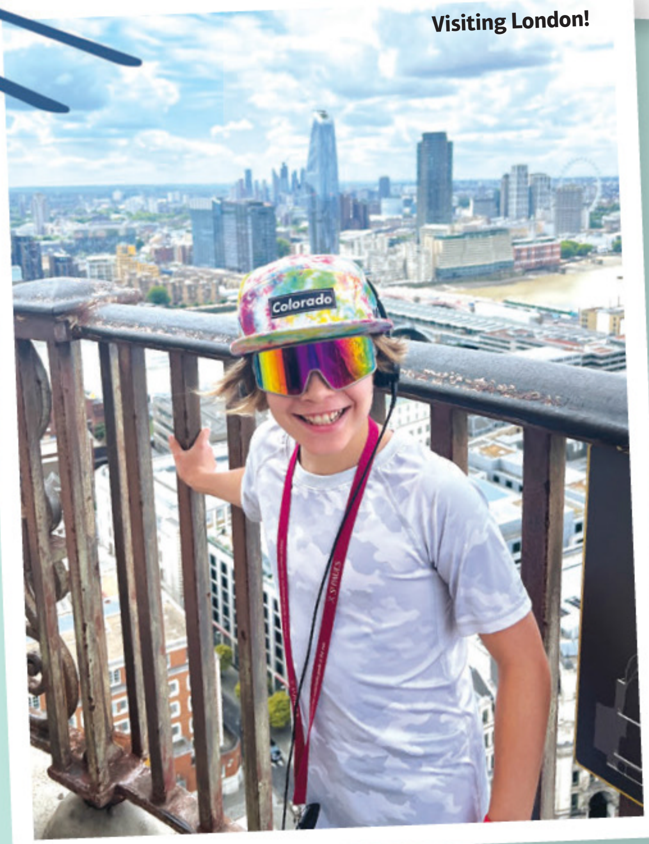
My school starts at 7:20 and ends at 2:10, although I have to get up very early for my bus. Do you take the bus or do you drive?

I don't remember ever going to Vail, but I might've gone and not remembered. What's it like there?

That's a lot of training to do! Was it hard when you started out? Do you win prize money from your competitions?

Sincerely,

Alex



Visiting London!

Hey, Alex,

Mogul skiing was hard when I started, but I've gotten the hang of it. I do not make any money at competitions. I just do them for fun. I came in 12th at my last competition, and I have another competition this weekend in Vail.

I also got a skateboard for Christmas! I roller skate for training as it is sort of like skiing. We roller skate in the summer to prepare for the winter.

Do you have any siblings?

Sincerely,

Alexander

Hi, Alexander!

I have two older siblings. They are both grown up and don't live at home anymore. Do you have any brothers or sisters? Does anyone else in your family ski?

Good luck with your races in Vail! What are competitions usually like? Do you get a chance to meet kids from other clubs? Do you get bored when you are waiting for your turn to ski?

I know roller skating is similar to ice skating, but I didn't know it was like skiing. What are the similarities? Do you ever take a break from training?

Sincerely,

Alex

Alex

Dear Alex,

Exciting news! I won my age group at my last competition! I think I skied better than I have all season.

I do not have any siblings. Both of my parents ski. Before I started competing, I would ski with them a lot.

Competitions are a lot of waiting as you get two runs every three hours. I usually free-ski between runs with friends. One run in a competition takes about 20-30 seconds. In mogul competitions, I am judged on turns, speed, and jumps. Some of the best tricks are the Kossack (you spread your legs and put your polls between your legs), and a 360 (spinning all the way around). I do meet kids from other clubs.

We practice jumps on roller skates because roller skis are much heavier than roller skates. We practice indoors at Woodward at Copper Mountain during the summer and early winter.

I take breaks from skiing in the summer, but I also go to a few camps, one in Canada and another one at Mount Hood. I do not train on Mondays and Thursdays during the winter months.

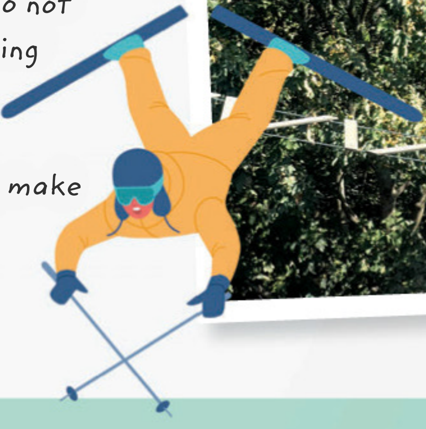
It was really great corresponding with you. If you ever make it up to Vail let me know!

Sincerely,

Alexander

Alexander waiting between runs

Alexander conquers a rope course.



What Is Mogul?

The mogul event is a form of freestyle skiing that takes place on a steep course covered in moguls. Moguls are a series of bumps. This event stresses speed, dexterity to make quick turns around the bumps, and high athleticism to perform aerial tricks.

A CLOSER LOOK

compiled by Max Scheinblum

The Mile High City

Denver, the capital of Colorado, is a city filled with history, beauty, and fun. It has a population of 715,000 people, making it among the 20 most populated cities in the United States.

Denver is often referred to as the Mile High City because of its altitude. A small plaque on a step of the State Capitol Building marks 5,280 feet above sea level. In Denver air, golf balls go about 10% higher and water boils at only 202 degrees Fahrenheit—it boils at 212 degrees at lower altitudes.

Denver is home to six professional sports teams—baseball, lacrosse, basketball, football, hockey, and soccer.

36
32
28
SAMUEL JR
26

What a view! More than 200 mountain peaks are visible from Denver, most of which are part of the Rocky Mountains.

Good Day Sunshine! The dry and sunny Denver climate experiences 300 days of sunshine per year. That's more than beach towns like San Diego or Miami.

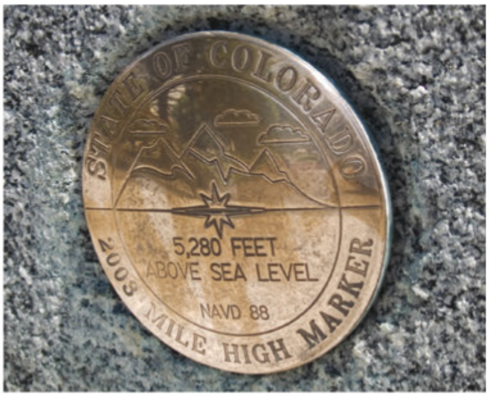
The Colorado Gold Rush of 1858 led to the creation of the Colorado Territory and the city of Denver. Prior to the gold rush, the Denver area was sparsely settled. Thirty years later, Denver had a population of about 200,000.

The cheeseburger was invented (or at least trademarked) in Denver in 1935 by Louis Ballast at the Humpty-Dumpty Drive-In. You can still see the spot where the sandwich was invented.

Denver has one of the largest park systems in the United States, boasting more than 200 in the downtown area and even more in the mountains.

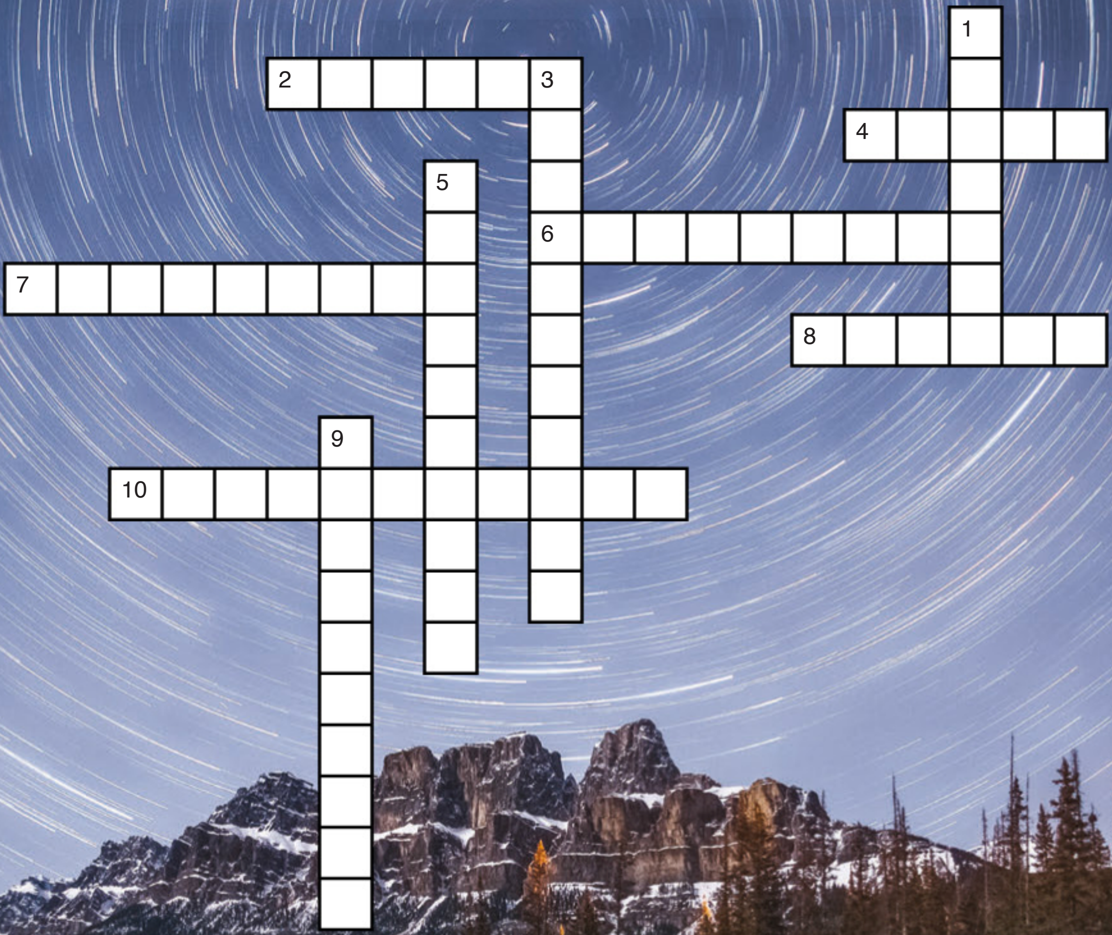
Colfax Avenue, which runs 50 miles east-west through Denver, is the largest continuous street in the United States.

The Denver Mint is the largest coin producer in the world, putting out more than 50 million coins a day. In addition to standard pennies and quarters, the mint produces special commemorative coins and uncirculated collectors' items.



ROCKY MOUNTAIN

Answers to Rocky Mountain Crossword on page 48



ACROSS

② Montana's nickname ________ ________ Country *(two words)*

④ Canadian National Park in Alberta

⑥ The United States acquired the Rocky Mountain region as part of the ____________ Purchase.

⑦ home of the cliff dwellers between 600 to 1300 C.E.

⑧ highest peak in the Rocky Mountains

⑩ dinosaur with three horns

DOWN

① mountain zone found between 5,500 and 9,000 feet

③ the oldest U.S. National Park

⑤ North America's largest desert *(two words)*

⑨ first name of explorer Lewis

Banff National Park in Canada offers some amazing views of the night sky.

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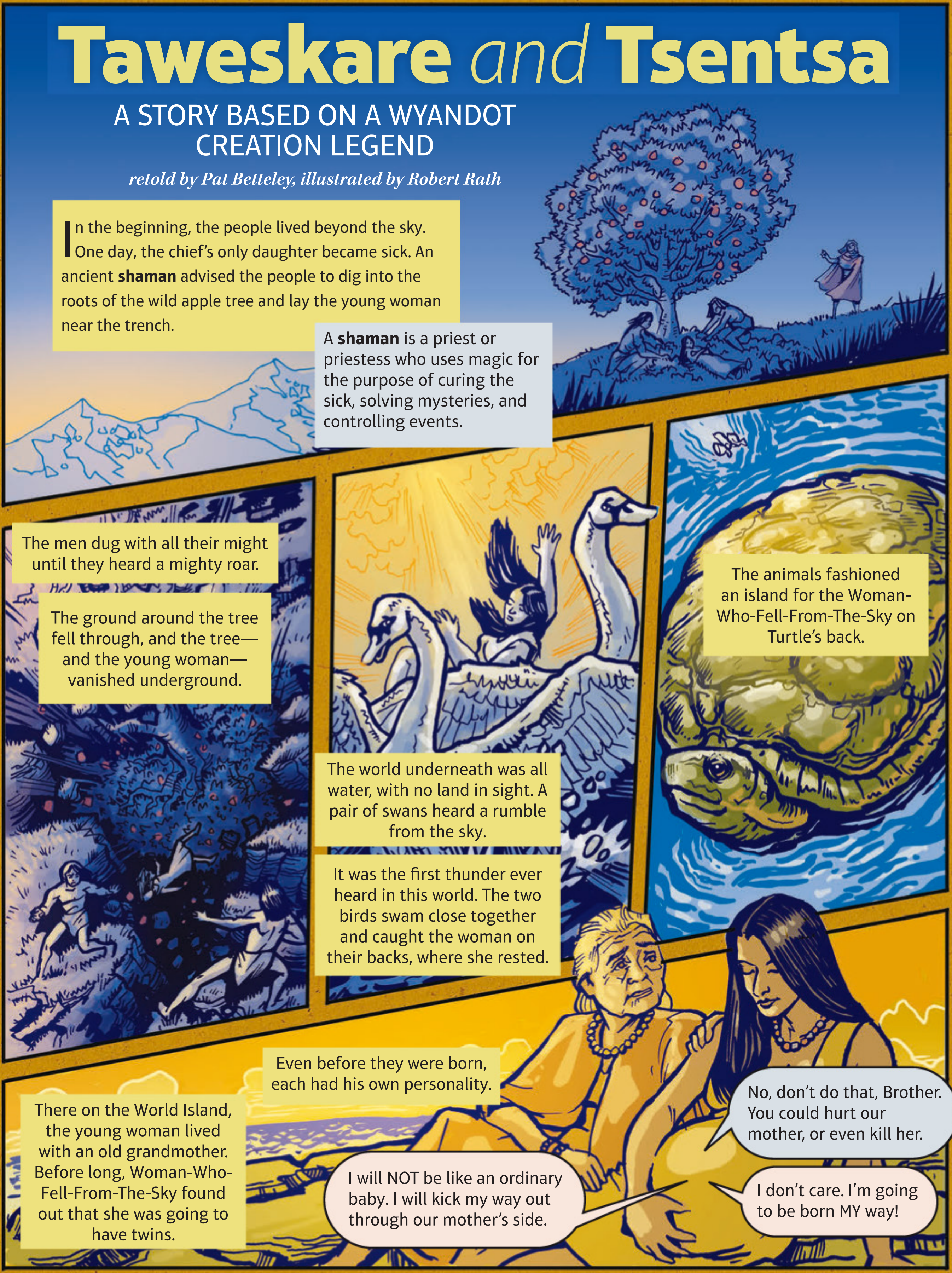
Taweskare *and* Tsentsa

A STORY BASED ON A WYANDOT CREATION LEGEND

retold by Pat Betteley, illustrated by Robert Rath



In the beginning, the people lived beyond the sky. One day, the chief's only daughter became sick. An ancient **shaman** advised the people to dig into the roots of the wild apple tree and lay the young woman near the trench.

A **shaman** is a priest or priestess who uses magic for the purpose of curing the sick, solving mysteries, and controlling events.

The men dug with all their might until they heard a mighty roar.

The ground around the tree fell through, and the tree—and the young woman—vanished underground.

The world underneath was all water, with no land in sight. A pair of swans heard a rumble from the sky.

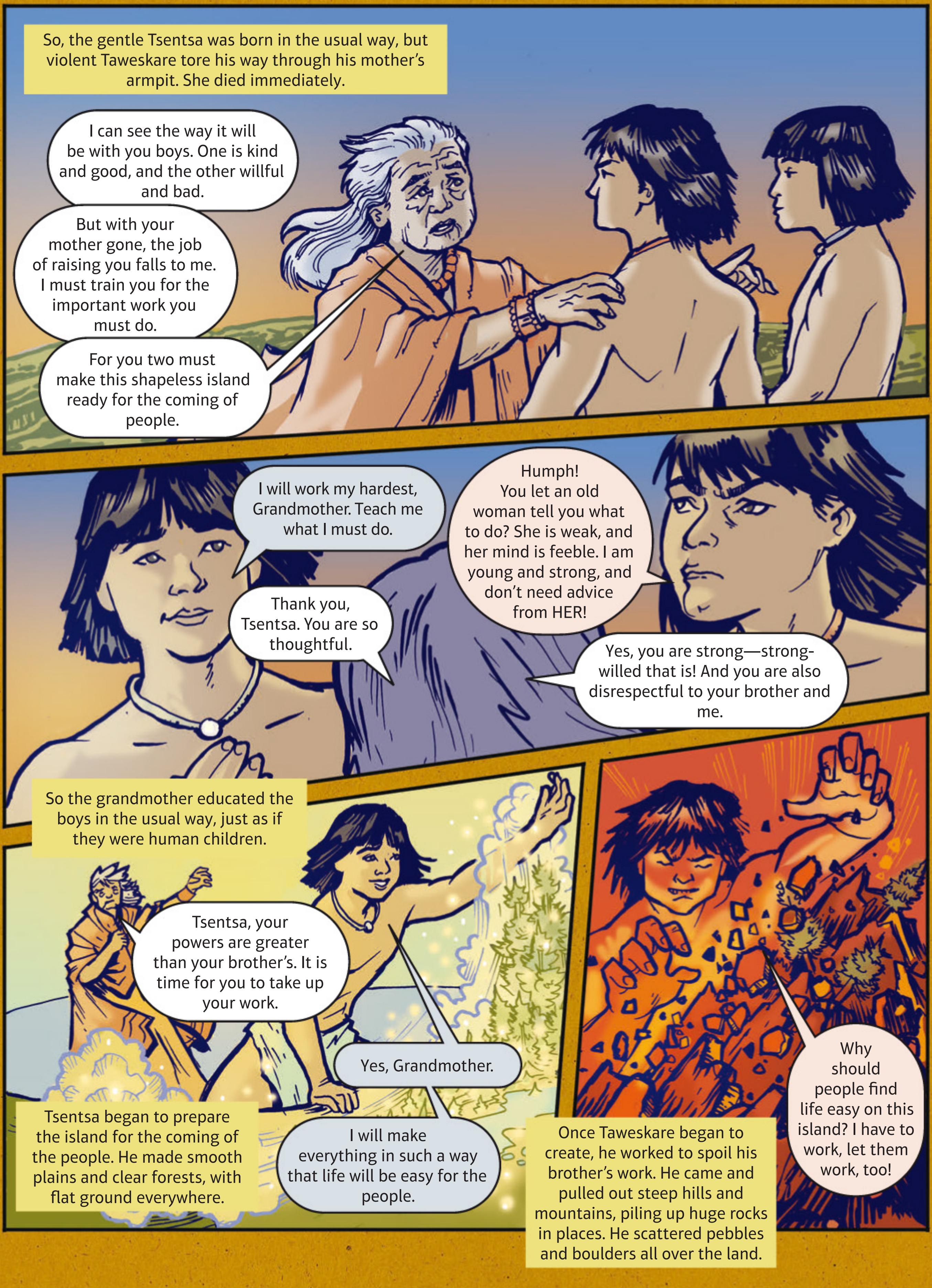
It was the first thunder ever heard in this world. The two birds swam close together and caught the woman on their backs, where she rested.

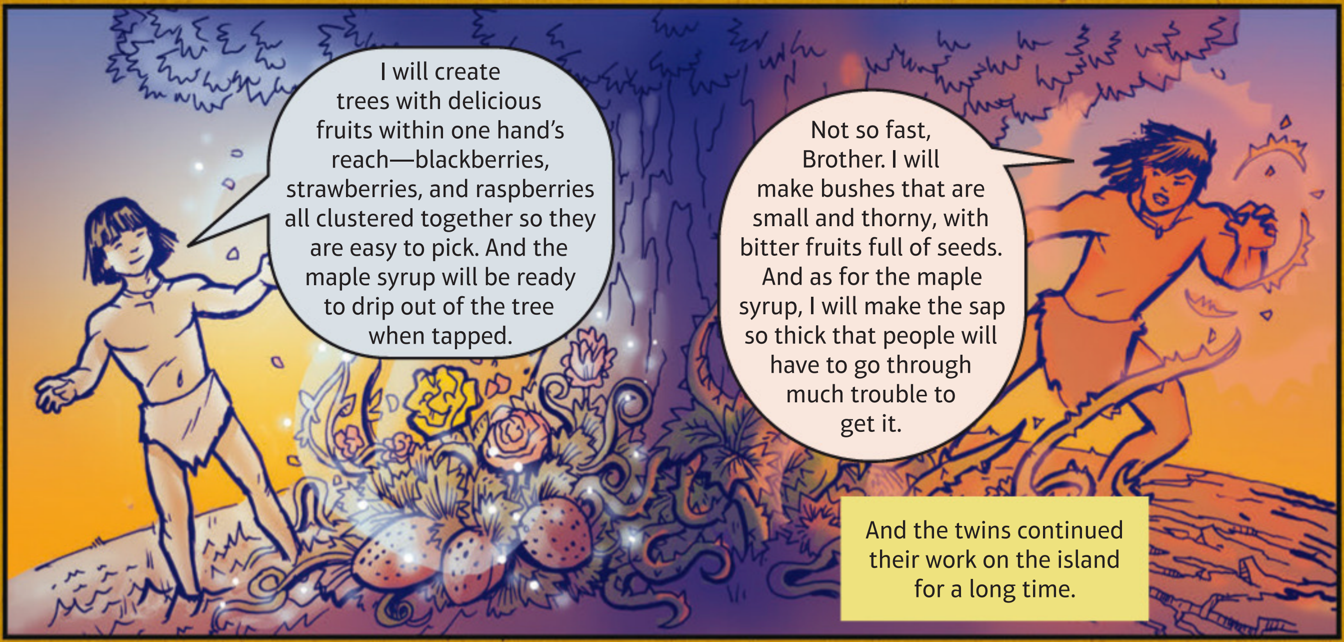
The animals fashioned an island for the Woman-Who-Fell-From-The-Sky on Turtle's back.

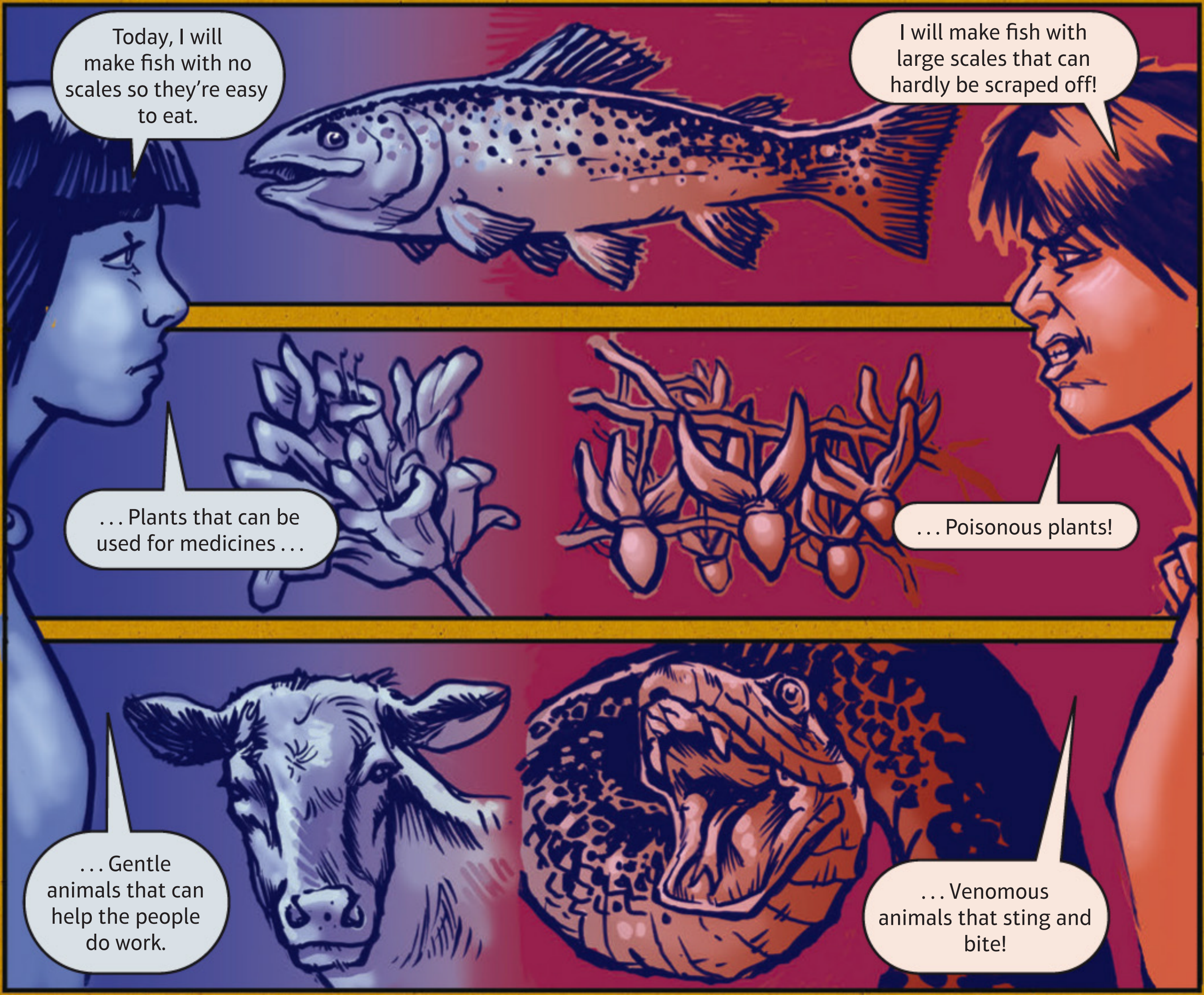
There on the World Island, the young woman lived with an old grandmother. Before long, Woman-Who-Fell-From-The-Sky found out that she was going to have twins.

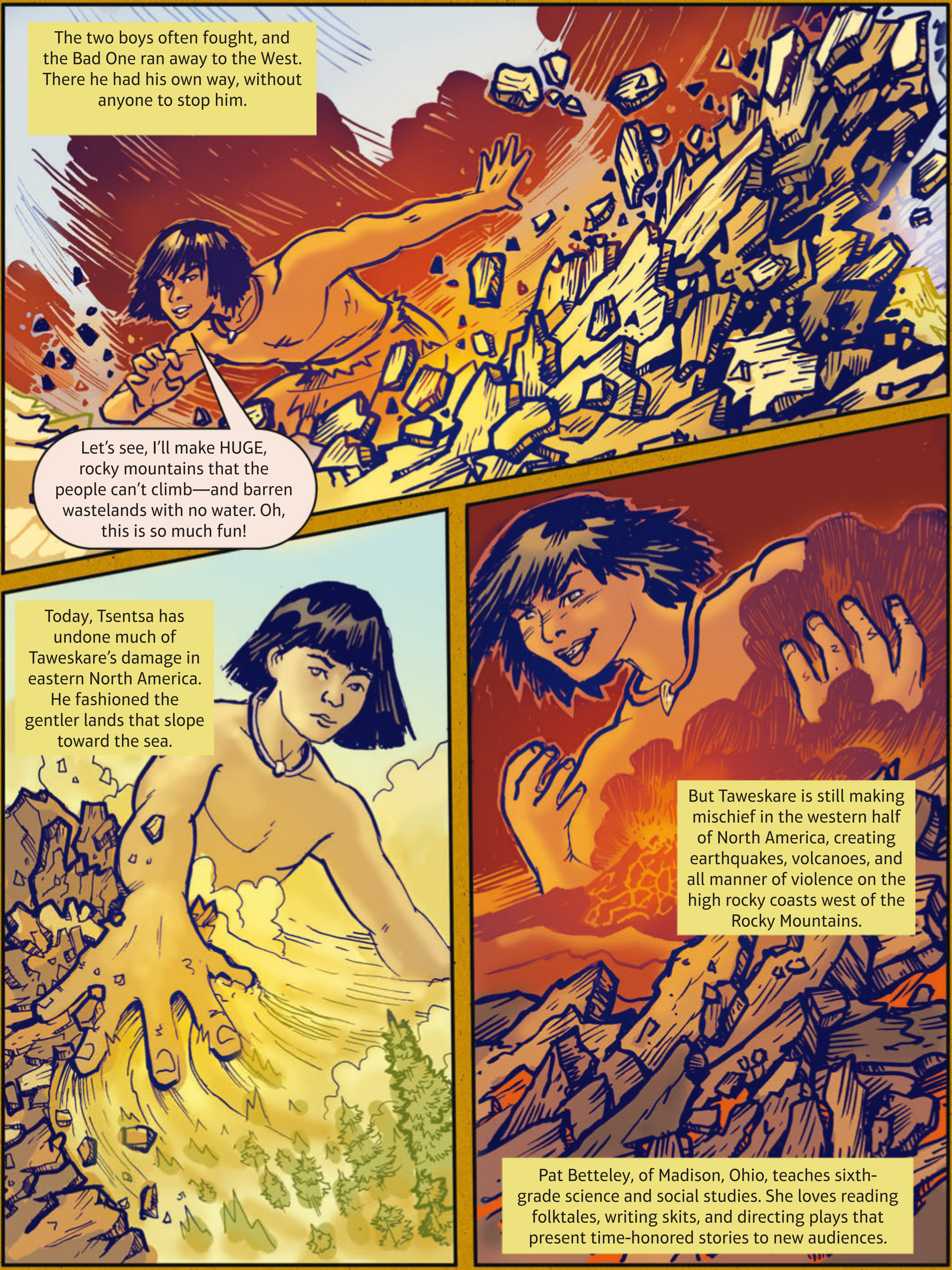
Even before they were born, each had his own personality.

I will NOT be like an ordinary baby. I will kick my way out through our mother's side.
No, don't do that, Brother. You could hurt our mother, or even kill her.
I don't care. I'm going to be born MY way!


So, the gentle Tsentsa was born in the usual way, but violent Taweskare tore his way through his mother's armpit. She died immediately.
I can see the way it will be with you boys. One is kind and good, and the other willful and bad.
But with your mother gone, the job of raising you falls to me. I must train you for the important work you must do.
For you two must make this shapeless island ready for the coming of people.
I will work my hardest, Grandmother. Teach me what I must do.
Thank you, Tsentsa. You are so thoughtful.
Humph! You let an old woman tell you what to do? She is weak, and her mind is feeble. I am young and strong, and don't need advice from HER!
Yes, you are strong—strong-willed that is! And you are also disrespectful to your brother and me.
So the grandmother educated the boys in the usual way, just as if they were human children.
Tsentsa, your powers are greater than your brother's. It is time for you to take up your work.
Yes, Grandmother.
Tsentsa began to prepare the island for the coming of the people. He made smooth plains and clear forests, with flat ground everywhere.
I will make everything in such a way that life will be easy for the people.
Why should people find life easy on this island? I have to work, let them work, too!
Once Taweskare began to create, he worked to spoil his brother's work. He came and pulled out steep hills and mountains, piling up huge rocks in places. He scattered pebbles and boulders all over the land.


I will create trees with delicious fruits within one hand's reach—blackberries, strawberries, and raspberries all clustered together so they are easy to pick. And the maple syrup will be ready to drip out of the tree when tapped.
Not so fast, Brother. I will make bushes that are small and thorny, with bitter fruits full of seeds. And as for the maple syrup, I will make the sap so thick that people will have to go through much trouble to get it.
And the twins continued their work on the island for a long time.


Today, I will make fish with no scales so they're easy to eat.
I will make fish with large scales that can hardly be scraped off!
. . . Plants that can be used for medicines . . .
. . . Poisonous plants!
. . . Gentle animals that can help the people do work.
. . . Venomous animals that sting and bite!



The two boys often fought, and the Bad One ran away to the West. There he had his own way, without anyone to stop him.

Let's see, I'll make HUGE, rocky mountains that the people can't climb—and barren wastelands with no water. Oh, this is so much fun!

Today, Tsentsa has undone much of Taweskare's damage in eastern North America. He fashioned the gentler lands that slope toward the sea.

But Taweskare is still making mischief in the western half of North America, creating earthquakes, volcanoes, and all manner of violence on the high rocky coasts west of the Rocky Mountains.

Pat Betteley, of Madison, Ohio, teaches sixth-grade science and social studies. She loves reading folktales, writing skits, and directing plays that present time-honored stories to new audiences.

by Rebecca Hogue Wojahn

Make Your Own Dinosaur Fossil

Most of what we know about dinosaurs comes from the study of their fossils. But what are fossils, and where do they come from? There are many kinds of fossils. Fossilized animal bones and teeth are formed when an animal dies and its soft parts, such as skin and muscles, rot away. As time passes, the remaining hard parts get buried under water and mud. Slowly, more and more layers of mud build up. Eventually, the bones and teeth turn to stone. These are called body fossils. There are also plant and shell fossils. A trace fossil is evidence that an animal was there—like a footprint. Fossils are found all over the world.

STEP 1

Flatten the clay and spread it onto the paper plate. It should be thick enough so you can press your object into it without going through to the plate.

STEP 2

Press the shell or bone into the clay. Push straight down, without wiggling, so all the details are preserved.

STEP 3

Carefully remove the shell or bone. You have just made what scientists call a fossil mold.

Materials:

- fist-size lump of clay
- paper plate
- shell or bone
- paper cup
- plastic spoon
- plaster of Paris
- water

STEP 4

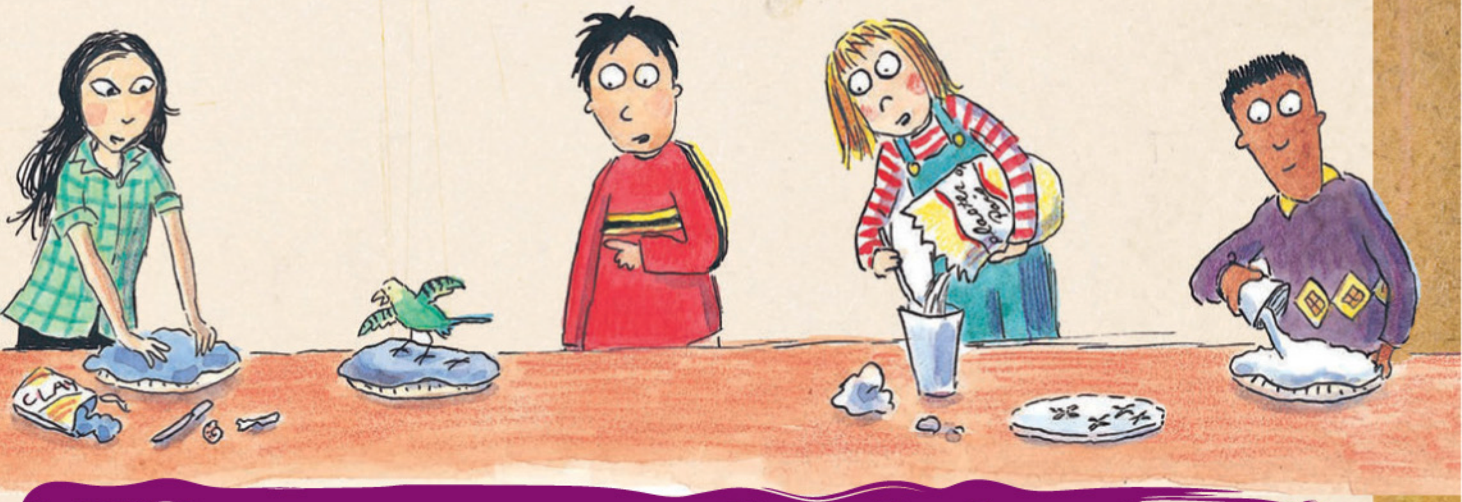
With the paper cup and plastic spoon, mix the plaster of Paris with water according to the directions. (Don't use a good cup or spoon because all the plaster won't come off.)

STEP 5

Pour the plaster into the fossil mold (the indentation) in the clay. Gently tap the plate to remove any air bubbles. Let it dry. (VERY IMPORTANT: Throw any leftover plaster in the garbage, not the sink!)

STEP 6

When the plaster has hardened, peel off the clay and plate. The plaster imprint of your shell is an example of a cast fossil. Scientists make casts so they can study fossils without damaging the originals.



YOUR TURN: Make a Dinosaur Fossil

Have your parent or legal guardian send us a high-resolution image of your creation to **faces@cricketmedia.com** by May 15, 2023. Be sure the email includes your name, age, and address, and states that "Cricket Media may publish the image provided in Cricket's magazines and online, and that I am authorized to provide the image."

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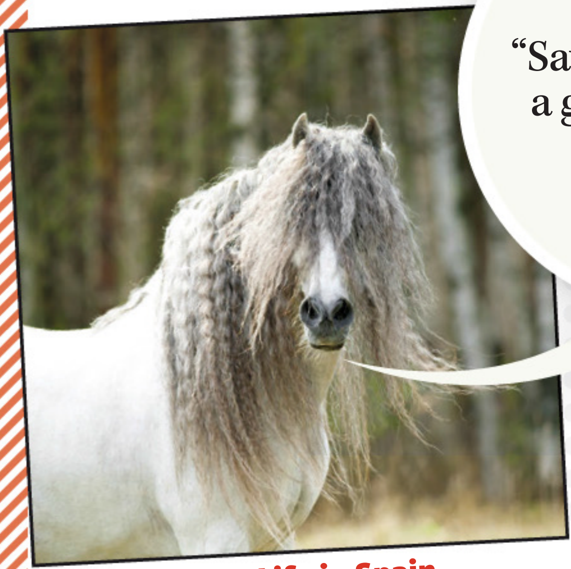
SAY WHAT?



“Say, do you know a good barber?”
—Nikhil K.

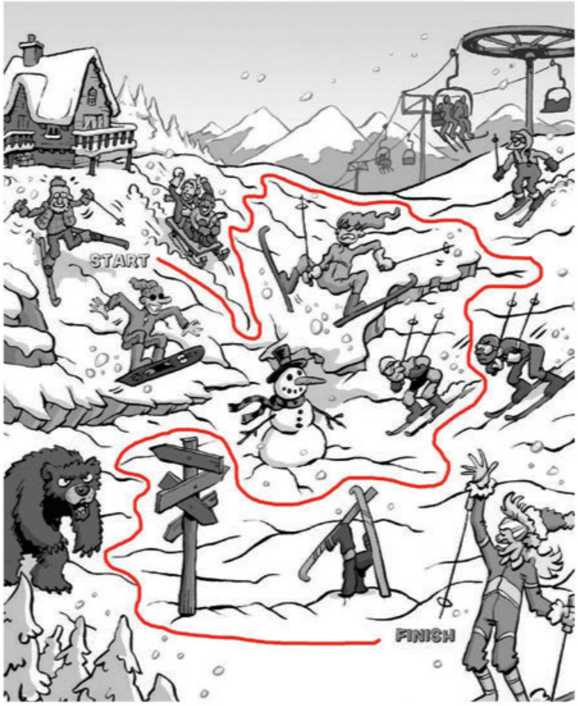
“I need a haircut!“
—Sarah A.

“My world is so gray.”
—Ingrid N.

“…8…9..10…ready or not hair I come!”
—Silas W.

February 2023 Life in Spain

Answer Page



ANSWER TO MYSTERY PHOTO ON INSIDE FRONT COVER:

Skiers use poles to help them keep their balance and for timing.

ANSWER TO WHERE IN THE WORLD ON PAGE 23:

The Beatles and U2 are among the famous acts who have performed at Red Rocks Amphitheatre. The open-air venue is about 10 miles west of Denver.

ANSWERS TO ROCKY MOUNTAIN CROSSWORD ON PAGE 40:

ACROSS: 2. Big Sky; 4. Banff; 6. Louisiana; 7. Mesa Verde; 8. Elbert; 10. Triceratops.
DOWN: 1. montane; 3. Yellowstone; 5. Great Basin; 9. Meriwether.

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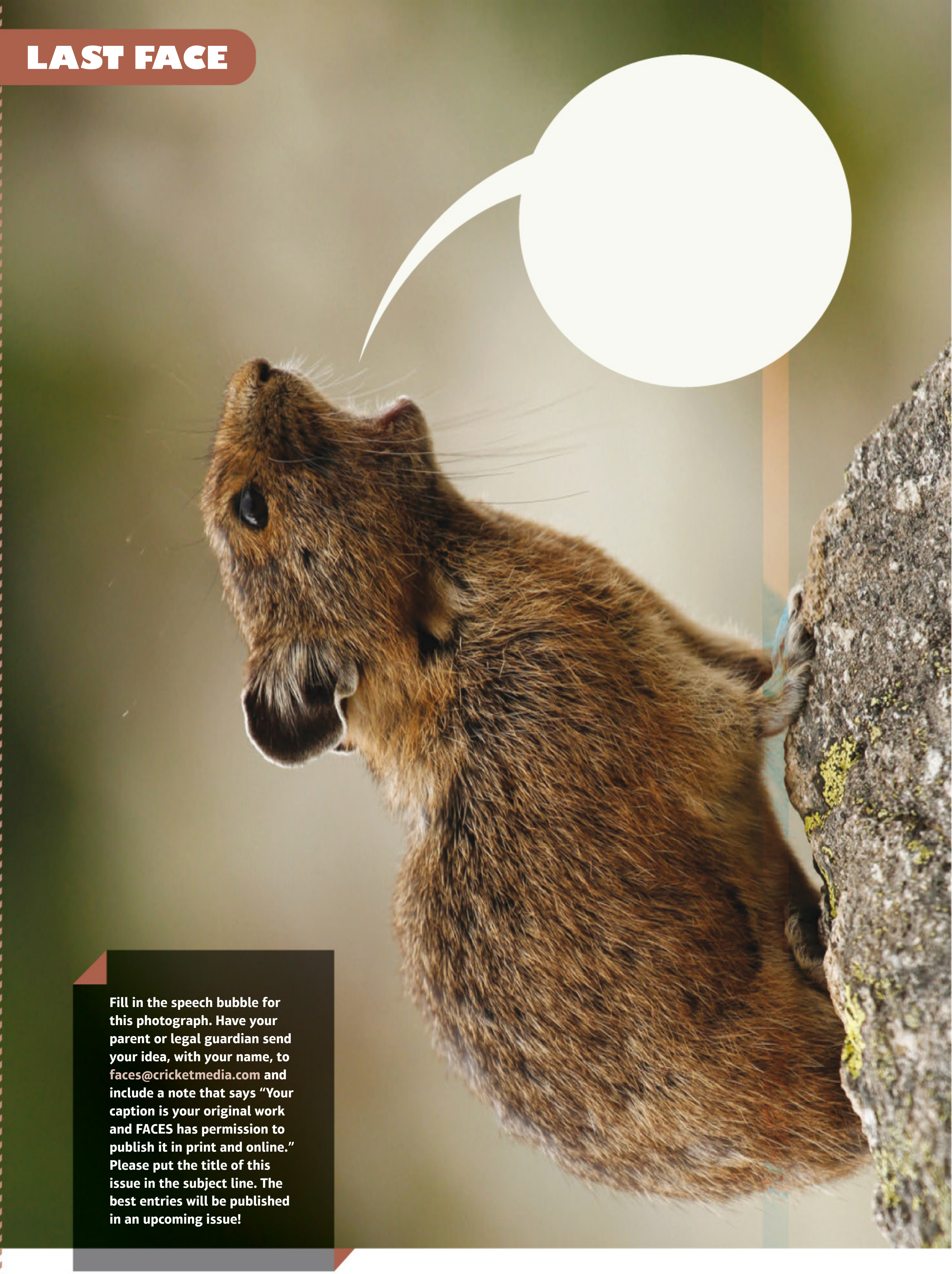

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Mountain Madness

illustrated by Chuck Whelon

Can you make your way through this crazy mountain maze?

Answers on page 48

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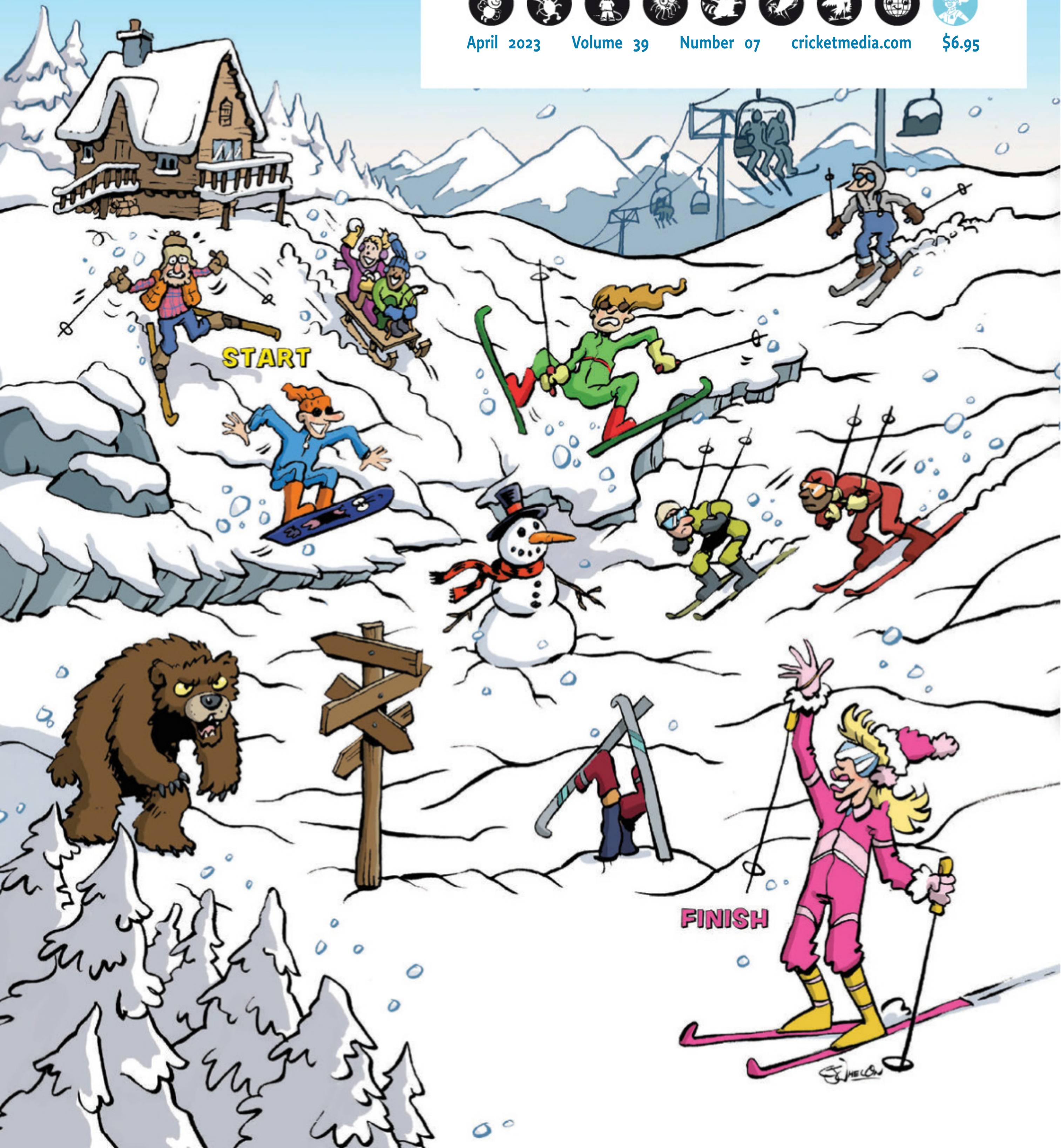
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